Miniature Votive Offerings in the Roman North-West

Philip Kiernan

Verlag Franz Philipp Rutzen
Mainz und Ruhpolding

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Studien zu Metallarbeiten und Toreutik der Antike

BAND 4

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Herausgegeben von Reinhard Stupperich und Richard Petrovszky

Band 4

Bibliografische Information der Deutschen Nationalbibliothek
Die Deutsche Nationalbibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über http://dnb.d-nb.de abrufbar.

Bibliographic information published by the Deutsche Nationalbibliothek
The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available in the internet at http://dnb.d-nb.de

Cover illustration: Various miniature objects. From the top left to bottom right, a coin impression and spear from Woodeaton (Ashmolean Museum); lead and gold wheels from Nanteuil-sur-Aisne (Musée des Ardennes), a bronze axe from Woodeaton, (BR61.iii, Ashmolean Museum), a bronze axe from Bern, Engelhalbinsel (SU10.ii, Historisches Museum Bern), two iron swords and a shield from Mouzon (Musée des Ardennes), a bronze saw and ladder from Cologne (Rheinlandes Museum Bonn). All objects are approximately 1:1.
Titlepage: A bronze stand with enamel decoration from Rheinzabern (Historisches Museum der Pfalz, Speyer).

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Gesamtherstellung: Druck Partner Rübelmann GmbH, Carl-Benz-Str. 11, 69 502 Hemsbach

In Kommission bei Harrassowitz Verlag • Wiesbaden
www.harrassowitz-verlag.de

VERLAG FRANZ PHILIPP RUTZEN
D - 83324 Ruhpolding, Am Zellerberg 21
Tel. 08663/883386, Fax 08663/883389, e-mail: franz-rutzen@t-online.de

ISBN 978-3-941336-45-2
ISBN 978-3-447-05991-6
ISSN 1868-3614

Acknowledgements

This book is based upon a dissertation written at the Institut für Klassische Archäologie of the Ruprecht-Karls-Universität, Heidelberg, and defended in July 2007. I am deeply indebted to my supervisors, Prof. Reinhard Stupperich and Prof. Diamantis Panagiotopoulos for their continuous support and advice, as well as Prof. Peter Miglus for chairing the examination committee. Funding for my studies in Germany were made possible by a Graduiertenstipendium from the Deutscher Akademische Austauschdienst (DAAD), and a Doctoral Fellowship from the Social Science and Humanities Research Council of Canada (SSHRC). The printing costs of this book have been provided by a generous grant from the Graduiertenakademie of the Ruprecht-Karls-Universität.

I would like to acknowledge and thank the curators of the museums and public collections who kindly received me and allowed me examine objects in their collections: Ms. Sabine Bolliger, Bernisches Historisches Museum; Ms. Sandrine Bosse and Dr. Marie-France Meylan-Krause, Musée romain d'Avenches; Ms. Annemieke Broeke, Stedelijk Museum Roermond; Ms. Eva Carlevaro, Swiss National Museum, Zürich; Dr. Hélène Chew, Musée des Antiquités Nationales, Paris; Dr. Sabine Faust, Rheinisches Landesmuseum Trier; Dr. Ursula Heimberg, Rheinisches Landesmseum, Bonn; Dr. Richard Hobbs, The British Museum; Dr. Susanna Künzl, Römisch-Germanisches Zentralmusem, Mainz; Dr. C. MacGregor, Ashmolean Museum, Oxford; Paul Motte, Les Amis de Vieux Mouzon, Mouzon; David Nicolas, Musée des Ardennes, Charleville-Mézières; Prof. Eugene Warmenbol, Lionel Rivière and Nicolas Paridaens of the Université Libre de Bruxelles.

I am also much indebted to all of those museums and institutes who answered my enquiries, even if it was only to register that their collections included nothing of interest. My sincere thanks to everyone who sent me references, photocopies, and illustrations of often unpublished and obscure material, either personally, by post and e-mail, sometimes in response to my enquiries, and sometimes entirely unsolicited, in particular:

Prof. Miranda Aldhouse-Green (Cardiff University); Dr. Margrit Balmer (Archaeological Service in Zürich); Daniel Castella; Ben Croxford (Cambridge); Adam Daubney (Portable Antiquities Scheme); Jean Dufrasne; Dr. Adam Gwilt (National Museum of Wales), Dr. Isabelle Fauduet; Hannah Friedmann; Roy Friendship-Taylor; Dr. Eleanor Ghey; Evelyn Gilet; Dr. Andreas Hensen (Kurpfälzisches Museum der Stadt Heidelberg); Dr. Fraser Hunter (National Museum of Scotland); Ralph Jackson (British Museum); Victoria Jefferson; Jacques Naveau; Prof. E. N. Lane† (Missouri); Philip MacDonald, Nicolas Paridaens (Université Libre de Bruxelles); J.-L. Coudrot (Musée du Châtillonais), D.C. Steures; T. Luginbühl,Margaret Ward and Sara Wear (Warwickshire Museum).

If anyone has been missed from the above lists, I extend my sincere apologies. The distribution maps in this book were produced by Eric Leinberger, and some final technical editing was undertaken by Matt Maher. Both services were kindly provided for financially by the Department of Classical, Near Eastern and Religious Studies at the University of British Columbia. All errors and omissions are entirely my own.

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1. INTRODUCTION

1.1. Miniature and Model Votive Offerings

The production of miniature or model objects for ritual purposes is a phenomenon that can be observed in practically all areas of classical archaeology. From the Minoan to Byzantine periods, artefacts can be found labelled as 'miniatures' and 'models' in excavation reports and museum catalogues. The Romano-Celtic world, where archaeology and artefact studies play a major role in our understanding of religious practices, is no exception. There is hardly a book written on the topic of Romano-Celtic temples or religion that does not devote some space to the significance of miniature votive offerings. A few articles have considered miniature objects from particular sites or areas, but no comprehensive study of the phenomenon of miniaturisation has ever been undertaken.[1] In general, there is an unwritten but nonetheless universal consensus that these artefacts formed a homogenous offering type in antiquity, and that they were all produced for the same or very similar reasons. More specifically, it is widely assumed that miniature votive offerings functioned as a special means by which ordinary people could approach, propitiate, and thank the divine powers with a minimal expenditure of personal resources. Those who could not afford to dedicate the real thing had the option of using a model as a substitute. Both of these assumptions will be challenged in this book, which considers the various finds usually described as miniature or model votive offerings separately, and evaluates their contribution to our understanding of Romano-Celtic religion.

1.2. Defining Votive Offerings, Models and Miniatures

There is surprisingly little dispute amongst archaeologists as to what constitutes a votive offering. The term can be found applied to virtually any artefact found in a ritual context, be it a sanctuary, a pit or a body of water. Votive offerings may be objects removed from the mundane world, such as weapons, coins and jewellery, or may have been produced specifically for dedication, such as terracotta figurines or stone altars. Miniatures and models clearly belong to this second category. A stricter definition might demand that all votive offerings be dedicated as part of the *solutio* of a vow (*votum*), and would separate them from objects dedicated casually for luck and at regular religious festivals. As the archaeological evidence does not often allow for such a distinction, the common practice of describing

1 For instance: Webster 1986: 125-130; Henig 1984: 22, 59 and 148-149; Green 1976: 42-43, 1978: 32-33, and 1986a: 220-222; Bradley 1990: 184-187; Fauduet 1993: 117-118; Van Andringa 2002: 122; Derks 1998: 51; Müller 2002: 124-126; de la Bédoyère 2002: 116. Apart from the model weapons found at Mouzon (**3.3**), miniature votives of the north-west provinces are not mentioned in the new *Thescra* I.391-408 (2004, Bauchhenß).

anything that seems to have been ritually deposited as a 'votive offering' has been adopted here.[2]

The terms 'model' and 'miniature' are more problematic, and can be found applied to an astonishing variety of artefacts. Models are always reproductions of something else, but miniatures can either be things that are very small or small reproductions of larger objects. Thus a small bronze statuette of a deity might be described both as a miniature and a model. It is both a small object, and possibly a small reproduction of a larger cult statue. Nonetheless, the statuette is a different category of find than the sort objects that are dealt with in this book, and few archaeologists would apply either term to it.

This problem of terminology has been recognised by Miranda Green, who presented the following definition: "The term 'model' or 'miniature' object may be taken to mean, in the main, miniature replicas of full-size Romano-British objects... ...all models are recognizable copies of potentially usable items."[3] Green's definition makes it clear that we are concerned with representations of real day-to-day objects (*realia*), and not representations of divinities, imaginary things, art works, people or parts of their anatomy. Thus the vast corpus of anatomical votive offerings fall outside the realm of this study, as do representations of divinities and animals, even though these artefacts may also have functioned as replacements for the things they represent. For example, a terracotta figurine of a god might have been dedicated instead of a larger stone sculpture, and a bronze animal figurine might have been used to replace or commemorate an actual animal sacrifice. But these objects are major find categories in their own right, and merit individual study. The present work is concerned only with representations of man-made things, not humans, animals or gods.

Two further points should be added to Green's definition. First, all model objects, like many other types of votive offering, must have no possible intrinsic and functional use of their own. Attachments and fittings on Roman furniture, pendants, and jewellery often reproduce daily objects on a miniature scale, but they served the practical and non-ritual function of decorative elements. True miniature votive offerings were produced for purely ritual purposes, though it will soon become evident that the critical question of functionality is often difficult to answer when dealing with specific artefacts. Second, the objects we are dealing with are sometimes 'models' rather than 'miniatures' in the strictest sense of the words. It is conceivable that a model object can be the same size or even larger than the objects they represent, but their crudity or material of manufacture renders them unusable. In short, it is chiefly subject matter (*realia*) and a lack of functionality, not size that define votive models.

2 For a discussion of dedicated objects in archaeology in general see Osbourne 2004.

3 Green 1981: 253.

1.3. The Place of Votive Models in the History of Votive Deposition in North-West Europe

In his study of pre-historic votive deposition in Western Europe from the Neolithic to the end of the Iron Age, Richard Bradley argued that the various patterns and trends emerging in different periods are all segments of a long and interrelated sequence, rather than separate free standing traditions.[4] For this reason, we must begin this study by considering the place that has been assigned to miniature offerings within that long sequence of votive deposition. Chronologically that place is at the very end of the Iron Age, and the early years of the Roman period.

A general picture of the development of votive deposition in temples from the late Iron Age to the early Roman period has can be drawn from the excavation of sites like Gournay-sur-Aronde (Oise), Ribemont-sur-Ancre (Somme), Blicquy (Hainaut), Martberg bei Pommern (Rheinland-Pfalz) and most recently Tintignac (Limousin).[5] A typical Iron Age sanctuary consisted of a rectangular ditch that marked out the sacred area of the temple (*temenos*) in the middle of which a central pit had been dug. The pit was sometimes covered by a simple timber structure, and the outside of the ditch was often surrounded by a wooden palisade. Both ditches and central pits were used as receptacles for votive offerings, consisting of vast quantities of animal and human bones, iron weapons, pieces of armour, horse gear and precious metals.[6] At Ribemont-sur-Ancre, an enormous platform composed of weapons and human remains was constructed inside the sacred enclosure.[7] Contemporary assemblages of similar objects are known from watery contexts, such as rivers and lakes, and other natural settings. The massive collection of metal work found in the Thièle river at the site of La Tène itself, or the finds at Llyn Cerrig Bach in Wales are prime examples of ritual deposition in watery contexts.[8] Swords and spearheads from such deposits are often bent and twisted, while shield bosses and helmets are found intentionally scratched and dented. In short, these offerings been ritually damaged before being handed over to the gods. The archaeological evidence corresponds strikingly well to the testimony of several ancient authors, who describe the sacrifice of prisoners and animals, as well as the dedication and public display of war booty in Celtic

4 Bradley 1990: 155-156.

5 On Gournay-sur-Aronde and Ribemont-sur Ancre and see Brunaux 1986: 17-27 and 2000: 91-111. On the Martberg bei Pommern see Thoma 2006: 20-22 and on Hayling Island the spectacular finds recently unearthed at Tintignac were presented by Christophe Maniquet at the Roman Archaeology Conference 2005 in Birmingham and are described on-line at: http://tintignac.asso.free.fr/. (Accessed October 30th 2006).

6 Van Andringa 2002: 94-99; Fauduet 1992a; 87-91; Derks 1998: 168-185.

7 Brunaux 2000: 101-112; Cadoux 1984.

8 Vouga 1923 and Fox 1945.

society.[9] The inter-tribal warfare that characterised Iron Age society was likely a major source of supply for dedications of this nature.[10]

Apart from offerings of war booty, the dedication of high value precious metal objects is another prominent trait of Iron Age votive deposition. Large quantities of gold and silver coins, torques and iron currency bars have been recovered buried or deposited in watery contexts, natural settings and sanctuaries. Strabo (citing Posidonius) describes 15, 000 talents of silver that were removed by the Romans from sanctuaries and lakes near Toulouse, while Diodorus notes that enormous quantities of gold dedicated in Celtic sanctuaries became the inviolate and untouchable possessions of the gods.[11] These ancient observations are supported by modern archaeological finds. The hoards of gold and silver torques from Snettisham (Norfolk) correspond to the kind of high value votive deposition that was encountered by the Romans. Buried in small pits in what seems to have been an otherwise empty field, the Snettischam hoards finds are also an instance of votive activity in a natural setting.[12] Large concentrations of gold and silver coins, as well as hoards of precious metal coins, are also frequently found in Iron Age sanctuaries. In some cases, both coins had been intentionally scratched, bent or broken, in a form of ritual mutilation parallel to the destruction of dedicated weaponry.[13]

The overall picture of Iron Age votive activity, at least as it is preserved in the archaeological record, is one of high value dedications in which numerous objects of a similar nature were deposited in single or infrequent ritual acts. These activities were not undertaken by the normal individual members of Iron Age society, but by tribal elites or entire communities acting in unison. Precious metal offerings represented an absolutely enormous value in the ancient world, as did weapons and human and animal victims. In this respect, archaeologists have justifiably borrowed anthropological constructs to interpret votive activity in the late Iron Age in terms of potlatch, self-representation, and the reproduction or reinforcement of social structures through ritual display. The situation has been neatly summed up by Nico Roymans: "The ability to make large payments to the gods not only allowed the aristocracy to enter into a special relationship with the gods, but also to increase its prestige in society. The offering of wealth by the elite was not, therefore, simply a religious offering, but at the same time a socio-political event."[14]

The Roman conquest of the west resulted in major changes in both social structure and ritual practice, which included an abrupt cessation of high value

9 The sources usually cited are: Strabo 4.4.5; Caes. *B Gall.* 6.16-18; Diod. Sic. 5.32.6.

10 Brunaux 2004.

11 Strabo 4.1.13; Diod. Sic. 5.27.4.

12 Fitzpatrick 1992; Stead 1991b and 1998: 145-147.

13 A good discussion of hoards in temples see Nick 2005. On the mutilation of dedicated coins see Aubin and Messonier 1992; Kiernan 2001; Wigg-Wolf 2005; de Jersey 2005.

14 Roymanns 1990: 84.

and large scale votive deposition. Certain ritual activities, such as the deposition of war booty and human sacrifice, were stopped by the *pax romana* and other new legal restrictions.[15] There is a marked increase in the numbers of small denomination coins appearing on ritual sites at the end of the Iron Age and in the early Roman period. New and more varied sorts of objects began to be used as votive offerings, which for the most part were of a generally lower value than their Iron Age predecessors. At the same time, the formal Roman rite of undertaking a vow (*votum*) seems to have been adopted quickly by individuals in the new society. In this typically Roman rite, a request was made to the gods (the *nuncupatio*), and a payment was made in return if the request was granted (the *solutio*). This payment might consist of an animal sacrifice, the erection of a stone altar, or the deposition of low value objects such as fibulae, jewellery, bronze coins, clay statuettes, metal plaques, and so on.[16] These smaller objects reflect the offerings of private individuals rather than elites or communities, and are the direct result of a new economic and social system in which individuals could afford to approach the gods on their own. Model and miniature votive offerings are generally recognised as part of this diverse new class of low value personal offerings.[17]

Miniature votive offerings have an obvious potential to contribute much to our understanding of Roman style votive offerings. The bulk of available evidence for Roman period votive activity is heavily weighted in favour of the *solutio* part of the vow, and takes the form of inscribed stone monuments. These relatively expensive dedications typically record only the name of the dedicant, the recipient divinity, and one of the variants of the formulaic statement that a vow has been completed, such as *V.S.L.M. – votum solivit libens merito* – 'he fulfilled his vow willingly and deservedly.' Though clearly personal dedications, the stone monuments must have been beyond the means of most individuals and could hardly have been dedicated as casually or as frequently as coins or other smaller objects might have been. More frustrating, however, is the fact that neither the inscribed stone monuments nor the majority of smaller dedicated objects reveal anything about why the dedications were made.[18] Miniature votive offerings were not only low cost dedications that most worshippers could afford, but they also seem to offer the archaeologist a glimpse into the reasons behind their dedication. This is because it is a fairly reasonable assumption that the day-to-day objects represented by the miniature votive offerings relate directly or symbolically to the

15 Bradley (1990: 185) and Henig (1993b: 131) both specifically cite the *lex iulia de vi publica* as a Roman restriction on bearing arms. On the banning of human sacrifices see Henig 1984: 23.

16 For a description of format of the ritual of the vow in the north-west provinces see Derks 1998: 215-239.

17 Webster 1986: 222; Bradley 1990: 188-189.

18 On this problem see Derks 1998: 224-231, who argues that the *nuncupatio* of most vows were recorded on wooden writing tablets that have not survived. For speculation that the content of these wooden tablets was often similar to that of the well documented lead 'curse' tablets see Kiernan 2004.

identities, desires and needs of their dedicators. For example, miniature farming tools could be seen as representing the needs of a farmer seeking a good harvest, and miniature armour the needs of soldiers seeking protection in battle. Working under this assumption, scholars have proposed a myriad of possible explanations for the use of miniature votive offerings, and the mechanism by which small dedications could be used to sway the will of the gods.

1.4. Explaining Miniature and Model Votive Offerings

As a result of a tendency to discuss votive models and miniatures as a single homogenous group, a fairly limited combination of three ideas are usually put forward to explain their ritual function.

The most obvious explanation for miniature and model votive offerings is that they are cheaper substitutes for the things they represent. That is to say that they stood in the place of larger dedications which common worshippers could not afford.[19] In this sense, the practice of dedicating model objects approaches the anthropological concept of *'pars-pro-toto'*. While they are not, strictly speaking, parts of a whole, the same idea of economising and substitution is present. In a similar vein, miniature votive offerings can also be seen as saving space within a sanctuary, where the dedication of tools, weapons and other objects from daily life would have resulted in a large amount of clutter building up in any ritual space. Model weapons in partcular have been viewed as substitutes for dedications that were no longer possible under Roman rule.[20]

The second standard explanation for votive offerings is that they were more acceptable gifts to the gods than the actual objects they represent. The miniaturisation of dedications can be seen as analogous to their intentional destruction and mutilation. By destroying a votive offering, the worshipper removed it from the realm of human activity and made it the property of the gods by rendering it non-functional. Because of their small size, miniature objects are equally non-functional and as such were automatically appropriate offerings to the divine powers.[21] In the words of Martin Henig: 'In the spirit world, token-coins and other objects become real.'[22]

For Graham Webster, the primary explanation for all votive offerings, including miniatures and models, was symbolic, with their symbolism providing a clue to the desires and identities of the dedicator.[23] The models may have been symbols of a particular divinity, a ritual act, or the desires of the worshipper himself. Thus miniature wheels (**2**) are frequently associated with the god Jupiter-Taranis, and the so called *Mithrassymbole (***8***)* are often connected with the iconography of the

19 Green 1986a: 221.

20 Webster 1986a: 120-123 and 1986b: 222; Bradley 1990: 185, and 188-189; Woodward 1992: 67-69; Henig 1993b: 131.

21 Green 1986a: 222 and 1987: 239-241.

22 Henig 1984: 22-23.

23 Webster 1986: 124-125 and1986b.

mystery god Sabazius, or concepts of farming and fertility. Model axes (**4**) may be seen as general symbols of divine power, while miniature weapons might be viewed as symbols of the concrete desire of a warrior for success in battle. More abstractly, Webster proposed that miniature shields expressed a desire for general protection against evil.[24]

These three approaches are by no means mutually exclusive, and it would be foolish to favour one particular explanation for all model objects. Sometimes, especially in site reports, the major questions about miniature and model objects are simply left open, with archaeologists being content to describe them simply as ritual objects or votives. Nonetheless, those same site reports will group all of the miniature objects together under one heading in their catalogues of small finds. Thus we find a clear trend in archaeological literature to place all miniature objects in one group, and to see all of them as part of a universal phenomenon of shrinking offerings.

1.5. Chronological and Geographical Limits of the Study Area.

As miniature votive offerings are sometimes seen as later reflections of Iron Age votive practices, this study covers material dating from the end of the Iron Age to the end of the Roman period. In absolute chronological terms, this covers a period stretching from about 100 B.C. to A.D. 400. Some of the finds discussed follow precedents that are much older, or were even found together with much older material. In a few cases, we also find that medieval and modern objects have been erroneously identified as Roman. For these reasons, some flexibility has been allowed in the application of these chronological limits.

The north-west provinces of the Roman Empire are defined here as Britannia, Germania superior and inferior, Gallia Belgica, Lugdunensis, Aquitania and Narbonensis, Raetia and the three Alpes. In modern terms, this includes Britain, France, Germany, Holland, Belgium, Luxembourg, Austria and Switzerland. This ambitiously large area was not chosen only to compensate for the small and specific artefact type being studied, but also because it comprises a large part of the Romano-Celtic world, where the change from Celtic to Roman society played a major role in both historical and archaeological developments. There was not, of course, a universally accepted Celtic or Iron Age creed, and rituals would have varied from one locality to another. The archaeological evidence, however, clearly shows that certain patterns repeat themselves over a wide area in the Iron Age and Roman periods in the west. Greg Woolf suggested that: "Perhaps the best formulation would be 'local variation within a shared tradition,' a formulation that might well be applied to much of the culture of Iron Age Europe."[25] At first glance, the use of model votive offerings seems to be one common element in that shared tradition.

24 Webster 1986: 127-128.

25 Woolf 1998: 210.

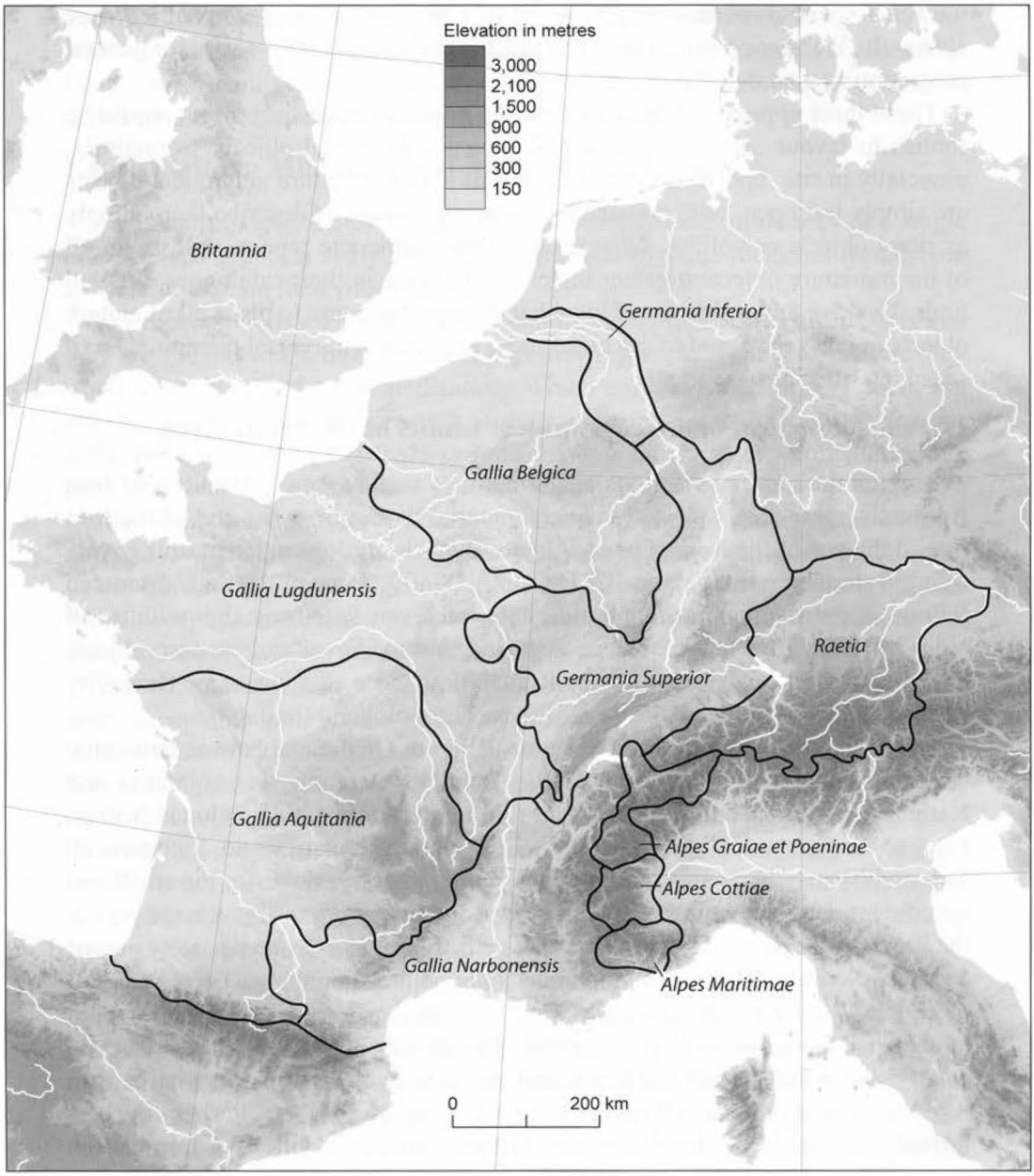

Fig. 1.1. Map of the Study Area showing Roman Provinces.

1.6. Methodology

The material discussed in this book was gathered from a survey of archaeological literature, starting with specialist works on religion in the north-west provinces. Two volumes by Miranda Green on religious material in Roman Britain (including small finds) had already laid the groundwork for that province, while Romano-Celtic sanctuaries and related material in France can be easily located thanks to the atlas and other works of Isabelle Fauduet.[26] The annual archaeological reports of the major national journals were then consulted (*Gallia, Britannia, Germania* etc.) and major survey works were examined (*e.g.*, in France the the *Carte Archèologique de la Gaule (CAG)*, and, in Germany, the series *Die Römer in.* etc.). Regional periodicals and individual reports were consulted as much as possible, with articles and monographs on known ritual sites being closely checked for relevant finds. Small local periodicals have proved surprisingly helpful, though they are often exceedingly difficult to find.

The second means of obtaining data was through a campaign of letter and e-mail writing to various museums and archaeological services. A website was set up on which images of model objects could be viewed, and a short notice appeared in the U.K. periodical *Lucerna*, the bulletin of the Small Finds Group. The U.K. database of the Portable Antiquities Scheme (*PAS*), proved to be an invaluable source of new finds, especially model axes, even if the information on the contexts of the finds was limited. As far as limited funding allowed, museums and public collections were visited in order to examine and photograph unpublished material. The author is much indebted to the scholars who responded so quickly and helpfully to his inquiries, and to those curators who received him. They are thanked individually in the introduction to this book.

1.7. Presentation of the Material

As it was realised early on that the miniatures objects are not as cohesive a find type as is usually supposed, a simple comprehensive catalogue would have been quite inappropriate. The general aim of the work has been to concentrate on contexts rather than typologies as a key to understanding miniature votive offerings. For this reason, the assembled model and miniature objects are described within the text of individual chapters based on the objects they represent, but also with detailed descriptions of their find spots and associated archaeological material.

To allow the various sections to be read independently of one another, chapters and sections are numbered, and cross-referenced in parentheses with a bold font. The first four chapters describe fairly similar finds: wheels (**2**), weapons (**3**) axes (**4**), and coins (**5**). Two chapters contain sections on groups of less coherent material that did not merit entire chapters of their own: ceramic and metal vessels and lamps and stands (**6**), and jewellery, tools, and models relating to travel (**7**). A

26 Green 1976 and 1978; Fauduet 1992a and 1993b.

group of bronze models from late antique burials, known as the *Mithrassymbole,* are discussed in the final chapter (**8**), prior to a concluding section. A catalogue of the very common miniature axes has been included as an appendix, though elsewhere individual finds are discussed within the text.

Great effort has been made to provide as many illustrations as possible in order to allow future researchers to compare new or unpublished finds with those described here. As the amount of time available in museums was often very limited, it was not possible to draw all of the artefacts seen. The overall goal has been to provide the best quality illustration possible, even if that has meant sacrificing a uniformity of appearance. To clarify details on some of the photographs, I have taken the rather unorthodox step of adding line drawn cross-sections or additional photographs. In a few cases, I have given preference to reproducing illustrations from obscure and hard to find sources. The majority of the illustrations are 1:1, though the scale is always given in the accompanying caption, and the sizes are provided in the accompanying text.

1.8. Note on Distribution

The long tradition of antiquarianism and archaeology in north-west Europe has produced a large body of literature on local finds and preserved countless artefacts in museums, but the attention of scholarship have been uneven. In areas where the supply of large monuments is poor, archaeologists often seem to concentrate their efforts on small finds. The distribution of small finds is subsequently skewed in favour of areas where such objects are regularly published or collected by museums. While an attempt at charting the distribution of different model objects has been given in each chapter, the above facts must always be born in mind. Some of the tendencies observed may be as much a result of local research interests as a reflection of reality. It is entirely possible that some types of miniature votive offerings that appear to be absent in any given area are simply unpublished or lying unrecognised in museum drawers.

2. MINIATURE WHEELS

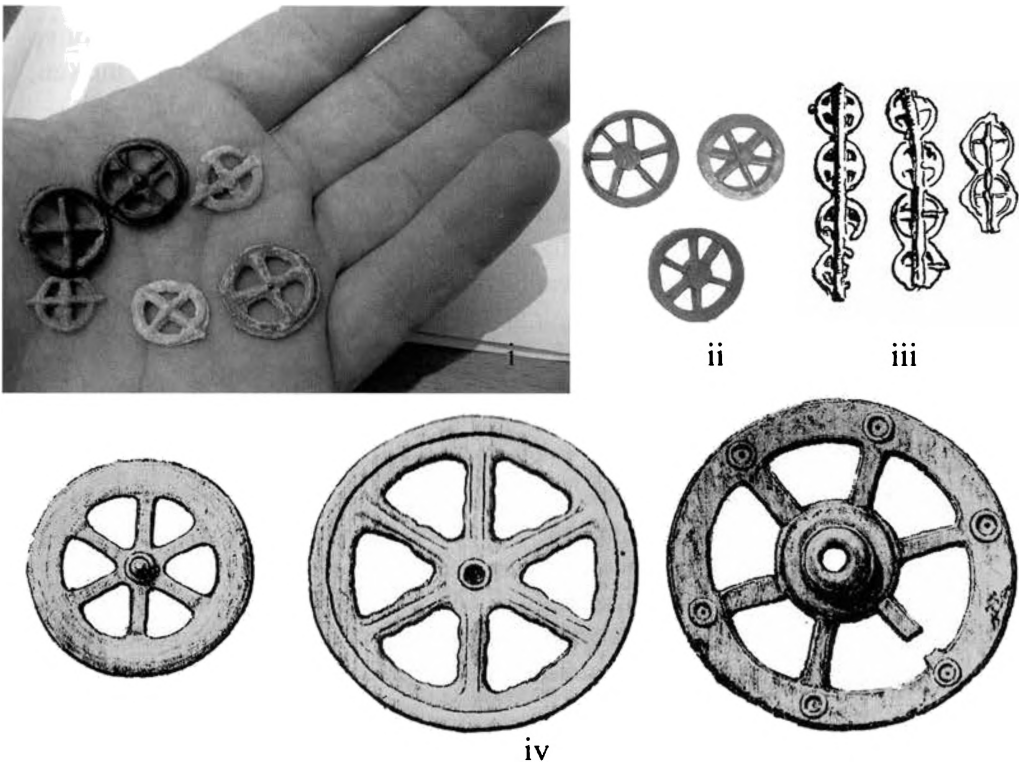

Fig. 2.1. Examples of Miniature wheels. i) lead and potin examples from Nanteuil-sur-Aisne; ii) gold examples from Nanteuil-sur-Aisne; iii) joined lead wheels from Lavoye; iv) three bronze wheel models from Boviolles. ii-iv: All 1:1.
(i-ii: Author, Musée de l'ardenne, iii: Gallia 35.404, fig. 13 (1977, Frézouls); iv: Chenet 1919: pl. 1).

2.1. Introduction

The appearance of miniature wheels in the archaeological record long before the Roman period makes them an obvious starting point for this study, as one might expect to find continuity in function and symbolic value. Representations of wheels in metal have been found on countless Roman and late Iron Age sites, often in very large numbers, but also individually, over a very wide area. Numerous attempts have been made to categorise and explain miniature wheels beginning in the middle of the 19th century, when they first began to be collected by museums and antiquarians.[1] Early collectors and commentators were chiefly interested in the variety of forms of the wheel models, and paid little or no attention to their

1 Similar amateur interest in the typology of the wheel models continues today. One recent private publication (Salicis 1996) provides an entire typology of wheel models without a single reference to either archaeological sites or geographical find spots.

archaeological contexts. The most useful recent scholarly discussion is to be found in Miranda Green's 1984 book on wheel symbolism, but a full scholarly study of the find spots, chronology and distribution of miniature wheels is still sorely lacking. They have been variously interpreted as amulets, coins, and votive offerings, while wheel symbolism has been seen as referring to travel, the sun, thunder, good fortune and a Romano-Celtic divinity known as Taranis.

The best documented sites with miniature wheel finds are late Iron Age sanctuaries, but they have also been found on domestic sites and in graves. Dress accessories that incorporate a wheel motif are quite common, and a few moulds for casting wheel shaped objects have also been recorded. This chapter will consider only a few sites and excavations that have produced miniature wheels in an attempt to better understand their archaeological context, and will only then turn to the interpretation of these enigmatic objects.

Wheel models are usually composed of copper and lead alloys, though in a few rare instances in gold and silver specimens have been recorded (**fig. 2.1**). Their diameters range from 5 to 120 mm, with the number of spokes varying from four to twelve. The centre of the wheels is often thicker than the rim and holed, as if to accommodate the axel of a cart or chariot. One particularly common type consists of a very small lead alloy wheel with four spokes and no central hole. Model wheels of this type were often cast in lines, and are sometimes found joined in the original casting tree (**fig. 2.1.i and iii.**) Apart from this rather schematic type, it is safe to say that most wheel models are fairly realistic reproductions of ancient wheels.[2]

It is more questionable whether simple metal rings (**fig. 2.6**) found on sanctuary sites are variants of the miniature wheels, as is sometimes proposed, or a separate phenomenon altogether.[3] There may be a good case for connecting the two find types, but there are a number of pitfalls in identifying all metal rings found at sanctuaries as votive offerings. Many plain rings will have been parts of functional objects, such as the links of chains, elements of dress, jewellery and so on. Even when it is clear that plain metal rings were produced for ritual purposes, it is not certain that they were the equivalents of the miniature wheels. Subsequently, plain metal rings are discussed in a separate section (**2.5**).

Another common find type is frequently misidentified as a miniature wheel, and can be eliminated from our study straight away – namely, the spindle weight (**fig. 2.2**). These circular objects were frequently made of lead, and were mounted on the bottom end of a wooden or bone spindle whorl on which wool was hand spun. The basic form of spindle weights changed remarkably little between the late Iron Age (**fig. 2.2.i**) and the early 20th century A.D (**fig. 2.2.iii**). These purely domestic items differ from the votive wheel models in several respects: they have a large central hole that is usually conical in cross section, they are thicker, have

2 For a discussion of the 'realism' of the wheel models see Green 1984a: 266-283.

3 de Widrange 1861; Fauduet 1992a: 119.

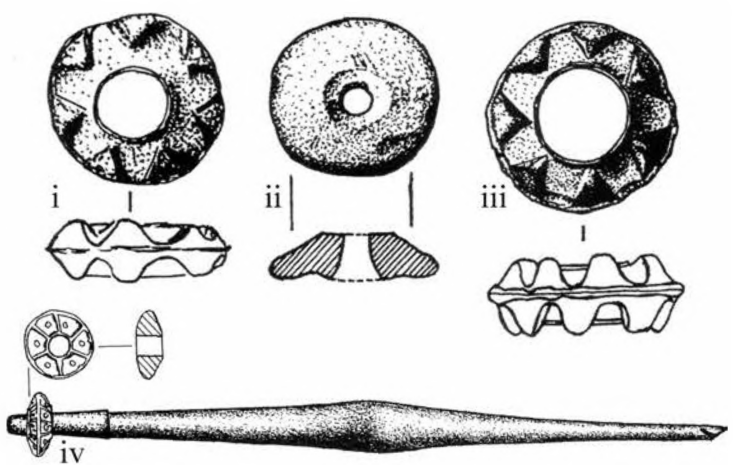

Fig. 2.2. Ancient and Modern Spindle Weights from Perigord. i: Puy-de-Pont; ii: Castel-Réal; iii: Négrouds. All 1:1. iv: A 19th Century Spindle Whorl with weight. 1:3. (From Chevillot and Moissat 1994: figs. 4.3-4 and 4.6 and 9.6).

no spokes, may have sloped sides, and sometimes include elaborate patterns on the surface.[4]

2.2 Wheels as Dress Ornaments and Wheels in Graves

Large bronze wheel shaped dress ornaments, usually incorporating a suspension loop or attached to large pins, are recorded throughout the Bronze Age in all of north-west Europe.[5] Likewise, various Iron Age and Roman period dress ornaments also employed the wheel motif, including numerous plate *fibulae* in the form of a wheel, dating from the first to third centuries A.D., and simple wheel pendants with suspension loops.[6] Carved stone depictions of warriors wearing wheel pendants on necklaces and torques are also known.[7] Perhaps the most unusual example of wheels being used in a dress ornaments are the five sets of head gear found at the Romano-Celtic temple at Wanborough in Surrey, each of which consists of linked bronze chains that terminate on top of the head in a pedestal surmounted by a wheel (**fig. 2.8.i**).[8] These unusual items have been compared to the obverse of certain silver staters of the Atrebates (**fig. 2.8.ii**) on

4 On the proper identification of these finds as spindle whorl weights see Chevillot and Moissat 1994. The spindle weight is known as a *fusaïole* or *peson* in French.

5 Gerloff, Hansen and Oehler 1993: 117-118.

6 Green (1984: 306-322, catalogue A) has recorded about 100 examples of wheel *fibulae* and pendants.

7 For example, the torso of a warrior in Fox-Amphoux (Var) wears a wheel pendant (Green 1984a, cat. no. B45; Espérandieu 15.8613); a funerary stele depicting a figure with torque and a six spoked wheel pendant in Metz (Green 1984a, no. B80); and an anthropomorphic amphora from Rheinzabern (Rheinland-Pfalz) also wears a torque with a wheel pendant (Chenet 1919: 250, fig. 5).

8 O'Connell and Bird 1994, 93-105. In each set, chains wrap around the wearer's head and connect to a wheel- mounted base at the top. They were probably attached to leather caps which

which a frontal head is represented wearing a hat that includes horns and a central wheel.[9] Further parallels to both the coin and the headgear can be found in the sculptural decoration of the Augustan/Tiberian triumphal arch at Orange. Several helmets with wheels and horns can be seen lying in piles of war-booty, as part of a *tropaion*, and being actively worn by a Gaul in a battle frieze. The same monument also bears a representation of a *tropaion* that includes a wheel-pendant necklace (**fig. 2.8.iv**).[10]

Wheel-shaped plate fibulae, pins, miniature wheels with suspension loops, and the headgear from Waneborough were all made to be worn, and thus do not fit within our definition of a ritual model. They served a practical function, even if they shared a common symbolism with the non functional models. We may return to this point shortly, but it is of more interest now to ask whether or not true miniature wheels, with no suspension loops or other points of attachment, could also be worn as dress accessories.

A number of burials containing plain wheel models from late Iron Age and early Roman period suggest that this was indeed the case. These graves provide some of the best datable contexts for miniature wheels, and also the best evidence for the use of wheels as worn amulets. Bronze wheel models are known in burials from the early La Tène period, such as the example found in the burial of a girl at Dürrnberg, that was part of a necklace that included various other bronze amulet-like objects (**fig. 4.5.i**).[11] But the early wheel models are quite different from those of the late Iron Age and early Roman period that concern this study. Their central hole is usually much larger, and their spokes are often irregular shapes rather than straight lines. Presumably the early Iron Ages wheel models were the direct successors of the Bronze Age wheel model jewellery mentioned above, and they are certainly much closer in their overall form. The use of these wheel models in burials ceases at the end of the early La Tène period, and does not re-emerge until the end of the middle Iron Age, when they take the same basic form as the other wheel models discussed in this chapter.[12]

At least five Iron Age and early Roman cremation burials in the cemetery at Wederath (*Belginum*) contained bronze wheel models. Four of these date to the end of the middle La Tène period (150-100 B.C.) and one to the late La Tène (100-50 B.C.).[13] Some of the wheels from Wederath were slightly melted, suggesting that they were located on the corpse at the time of cremation and not added to

have since perished. These unusual items have been compared to silver staters of the Atrebates, which depict a frontal head surmounted by a wheel and horns.

9 O'Connell and Bird 1994: 93-105.

10 Espérandieu I.260; Amy *et al.* 1962: Pl. 16, 19, 28 and 03b.

11 Pauli 1975: 15, fig.3.28; Penninger 1974: Grave 71/3, 33-36 fig. 1 and pl. 138.27. See also below in **4.4**.

12 Van Endert 1991: 15-16.

13 Green 1984a, 309 no. A52; Haffner 1971-78: Middle La Tène: I. no. 98. pl. 22.2; no. 268, pl. 64; II. no. 463; pl. 144.10, III. no. 1205, pl. 305 and 340.1. Late Iron Age: I. no. 314, pl. 126.

the burial later.[14] Most had four spokes and ranged from 1.5 to 4 cm in diameter, though two badly melted examples from one grave must have been larger, and had nine spokes each.[15] The associated grave goods included fibulae and a variety of beads, and in one grave several miniature wheels seem to have been attached to a single necklace. Though the wheels found at Wederath were closely associated with dress ornaments, the cremation burials do not demonstrate the attachment of the wheel models on the body. For this we must turn to five inhumations containing miniature bronze wheels in an Iron Age cemetery near the old gas works in Basel. While the site is not as well known as Wederath, the burials are more narrowly dated between 150 B.C. and 58 B.C., when a nearby settlement was founded and intentionally abandoned.[16] The wheels in these inhumations burials were frequently located near or mixed up with the skeleton, suggesting that they too were originally attached to the clothing of the deceased.[17] Given the lack of suspension loops, they must have been attached to cloth backings or necklaces with thread being sewn between the spokes or through the central hole.

Fig. 2.3. Stradonice. Fibula with wheel attached. 1:1 (After Pic 1906: Pl. 10.24).

Even more evidence for the use of plain wheel models as dress accessories be found in the use of wheel models attached to *fibulae*. Examples are known from at Suippes (Marne), and, outside the study area, at Stradonice in the Czech Republic. The wheel model from Suippes has a somewhat different shape than other wheel models, consisting of a metal disc with circular perforations running in a circle around the inside edge. It was found attached to a fibula by a small piece of bronze wire.[18] One of the many fibulae from Stradonice is firmly attached to a four spoked bronze wheel by a short piece of bronze chain (**fig 2.3**). Another fibula from the same site was found with a wheel model threaded onto the pin through one of the gaps between the spokes.[19] All three fibulae are datable to the late Iron Age on the basis of their forms, though none was recovered in a specific archaeological context.

Burials with miniature wheels from the Roman period are much less common. One bronze wheel model was found in the inhumation of a c. 40 year old woman

14 Notably graves 268 and 314.

15 Grave 1205 pl. 126.4 and 80.10-11.

16 Major 1940: 195-201.

17 Major 1940: 168-170, pl. 70. Graves 13, 19, 29, 44 and 50.

18 van Enderdt 1991: 17. Citing de Mortillet 1876: fig. 12 (*non vidi*). Déchelette 1914: 1298 fig. 562.1.

19 Pic 1906: 61, pl. 10.24; Déchelette 1914: figs. 2 and 3.

just outside the rural settlement at Dury, Somme. The body was buried in a wooden sarcophagus, with the head of the deceased pointing north, and the hands clasped over the breast. On top of the skeleton, presumably worn by the deceased, were two *aucissa fibulae*, a bronze ring, and an amber bead, and a common ware jug and the bones of a cock had been placed just above the head. A small pile of objects, perhaps once contained in a cloth bag, were found below the right elbow of the body at the level of the hips. This pile contained three Gallic coins (two bronze, one potin), a bronze *as* of Nîmes, a fibula, two beads made of amber and flint, two bronze rings, three iron keys, a hinged toiletry set (for a comparable example see **fig. 3.26**) and the miniature bronze wheel. The wheel has a diameter of 40.5 mm, and eight spokes that originate from a thickened, but not pierced, central point. On the basis of the coins and *fibulae*, the burial can be dated between 25 and 10 B.C.[20] Once again, the direct association of this wheel model with other artefacts that can be worn suggests that true wheel models without suspension loops were still being worn in Augustan period Gaul.

The inescapable conclusion is that at least some plain miniature wheels were meant to be worn. Based on the presence of miniature wheels in graves, van Endert suggested that their function was, in fact, purely amuletic. This idea is discussed further on in the conclusions (**2.8.4**), after the large scale deposition of miniature wheels on certain ritual sites has been considered.

2.3. Large Scale Finds of Model Wheels in Temples and Ritual Deposits

2.3.1 Early Finds: Boviolles, the Loire, Lavoye.

One of the earliest mentions of miniature wheels as an archaeological phenomenon is at the site of Boviolles (La Meuse), where local residents found untold thousands of miniature wheels in the topsoil of the site in the 1830's to 1840's. The site is a hilltop oppidum, and apart from the wheels has yielded very large quantities of Iron Age coins.[21] Initially, local treasure hunters found a new use for these artefacts – re-selling them as 'Wheels of St. Catherine' to pious Christians.[22] Wheels from Boviolles can still be found in museums throughout France today. Other oppida sites excavated or exploited in the 19th century have also produced wheel models, albeit in much smaller numbers. These include Manching, Stradonice and Mt. Beuvray (Bibracte, Saône-et-Loire).[23] The

20 Quérel and Feugère 2000: 114-120.

21 de Widrange 1861: 1-4. On the oppidum as a whole see *CAG* 55 La Meuse. 370.396-403 (Mourot, 2001). In the valley below the *oppidum* in the village of Boviolles itself, a later Gallo-Roman temple site produced a sculpture fragment depicting a pair of female legs seated on a throne decorated with two *cornucopiae* and a wheel. Espérandieu 1915: 6.4662.

22 Chenet 1919: 253. Catherine of Alexandria is an apocryphal saint, sentenced to be tortured on a wheel during the tetrarchic persecutions. The wheel was one of her attributes in modern sacral art, and the origin of the name of the spinning firework the Catherine's wheel.

23 On Stradonice Pic 1906: 61. pl. 10.24-40; The pieces from Mt. Beuvray can be found in the Musée des Antiquités Nationales. On Manching, and for more examples of early finds see van Endert 1991: 17, footnote 158.

miniature wheels from Boviolles and these other sites are still far too numerous to represent accidentally lost pieces of jewellery. Although the exact archaeological contexts are not known, it is fairly clear that we are dealing with ritual deposits of miniature wheels.

Another important large scale deposit was uncovered by dredging operations in the river Loire near Orléans in the mid 19th century, when more than 2000 wheel models and numerous coins came to light. At the time, archaeologists interpreted these finds as votive offerings left by those who wished to cross, or who had successfully crossed the river safely.[24] Not surprisingly, there is no proper documentation from this site either, though the watery context of the find spot also speaks for a large scale ritual deposit.

More frustrating still because of the lack of a more complete account is the unusual discovery made amongst the pottery workshops at Lavoye (Meuse). A small rectangular basin (2.5 x 3 m) lined with masonry walls was unearthed here in 1911. No depth is specified in Chenet's description of the site, but the bottom of the basin was filled with the clay rich mud that is natural to the area, and the basin was presumably filled with water in antiquity. At the foot of the basin's south and east walls, on both the inside and outside, 100 ceramic cups and pots were found wedged into the mud in a line, some upright, others inverted. Larger groupings of these vessels were found in the south-west and north-east corners of the basin. The north-west corner of the basin contained a small pile of Neolithic stone implements, and scattered on the basin's floor were 36 coins, ranging from Augustus to Commodus. Just outside the basin, at the south west corner, about 200 lead wheels were found buried in a small area about half a metre in diameter. Most of the wheels had four spokes, and diameters ranging from 6 to 8 mm. The group included several long cast strips of wheels, with as many as 11 wheels joined in a single strip (**fig. 2.1.iii**).[25] Other miniature wheels, including larger bronze specimens, have been found elsewhere at Lavoye, but only in smaller numbers, and never in such an interesting context.[26]

2.3.2. Nanteuil-sur-Aisne, "Nepellier", Ardennes, France.

This site was excavated between 1959-61, but not published until 1989 on the basis of the very sketchy notes of the excavator.[27] The site is a Romano-Celtic temple that was constructed on top of an Iron Age sanctuary, and that remained in use up to the mid fourth century A.D. Evidence for Iron Age activity consists of trenches filled with bones, coins and ritually mutilated weapons, many of which

24 Green 1984a: 417, nr. A84; Reinach 1894: 34, note 6; Mowat 1881: 59.

25 Chenet 1919: 244-46, champ Boivin, chambre P; *CAG* 55 (Meuse) 285. 69*.305-344. (2001, Mourot).

26 Chenet 1919: 248. In the champs Palanson, Langelot, Vauquois, and Tugnot.

27 Lambot 1989. The small finds from the site, locally referred to as "Nepellier," seem to have been given partly to the local museum, the Musée de Rethélois, and partly shared amongst the excavators. Thus it is impossible to say how many wheel models were found. Some 'hundreds' are to be found in the Musée de Rethélois.

were found at the very bottom of the trenches. On the basis of their forms, the weapons can be dated from the early second century B.C. to the end of the Iron Age.[28]

The model wheels found at Nepellier are said to have numbered in the thousands, and were made of lead, potin, and bronze, ranging between 5 and 50 mm in diameter. The lead and potin wheels were far more common than bronze. A few small gold pieces in storage at the Musée de l'Ardenne are also recorded as coming from Nanteuil, though they are not mentioned in the site report (**fig 1.1.ii**).[29] Most of the wheel models had four, six or eight spokes, and some of the bronze examples were decorated with lines or dots on the spokes and rims. A number of the lead wheels were found still in their casting trees, which Lambot saw as indicative of local production.[30] Two separate concentrations of lead and bronze wheels within the *cella* walls were indicated in the site plan of the excavators, but with no mention of their depth in the ground. It is possible that they represent two deposits from the Iron Age sanctuary situated below the Roman period floor.[31]

2.3.3. Villeneuve-Saint-Germain, Aisne, France.

The site of Villeneuve-Saint-Germain provides a better documented context for the ritual deposition of miniature wheels, though the form of the site itself is certainly unusual. Explored most recently in the 1970's and early 1980's, it is located a mere six kilometres from one of the main *oppida* of the Suessiones at Pommier (*Augusta Suessonium*), and sits on a peninsula of land surrounded by a meander of the river Aisne.[32] A line of double trenches and a rampart of *murus gallicus,* a little over a kilometre long, seal off the south side of the site which is not bordered by the river. Excavations in the enclosed peninsula have uncovered various residential wooden structures, a pottery furnace and evidence of metal working, including moulds for casting coin blanks.[33]

The most prominent archaeological feature at Villeneuve-Saint-Germain is a set of four long trenches that form a cross in the middle of the enclosed area (**fig. 2.4.i**). The arms of the cross are almost aligned to the four points of the compass, with the east-west trench being about 500 m long, and the north-south trench about 230 m long. All four trenches were flanked by double rows of post holes, and small stone foundations were found at the ends of the north-south trenches (**fig. 2.4.ii**). The southern and east-west trenches form a T at the centre

28 Lambot 1989: 35.

29 It is possible that they stem from later excavations on which I have no information.

30 Lambot 1989: 35.

31 See Lambot 1989: 34-5, fig. 2. Lambot argued that all of the weapons and Gallic coins were found below the Roman period temple.

32 Peyre 2000: 155-157, figs. 1 and 2. Debord, Lambot and Buchsenschutz 1988: 121-123, fig. 1; Debord 1989: 25, fig. 1.

33 Debord 1993: Peyre 2000: 160-165 .

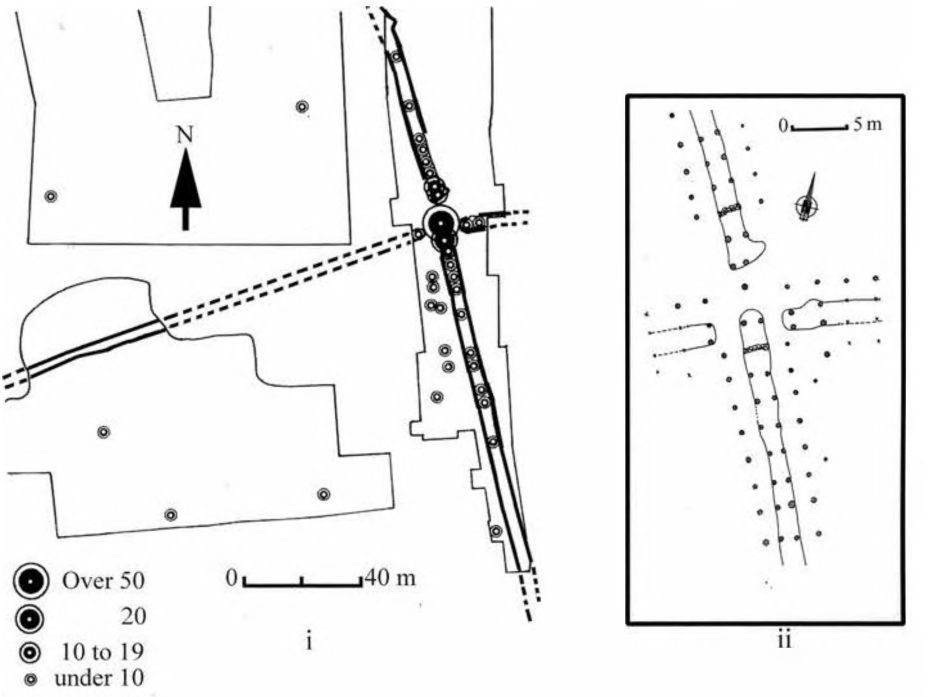

Fig. 2.4. The find spots of miniature wheels, and the crossing point of the two trenches at Villeneuve-Saint-Germain, Aisne. (After i: Debord 1989 fig 5; ii: Peyre 2000: fig. 4).

of the cross, and there is a short break before the trench running north begins.[34] At this central point, numerous coins, miniature wheels and glass beads were found. Both at the crossing of the trenches, and in the trenches themselves, a total of 289 bronze and lead model wheels were found, with the lead wheels (222) greatly outnumbering the bronze ones (67). The bronze wheels were consistently found deeper in the trenches, suggesting that they represent an earlier form of the offering. As at Lavoye and Nepellier, some of the lead wheels were still joined in casting lines. Other lead wheels seem to have been intentionally folded in on themselves. The span of the coin finds, and the fact that annual flooding of the river would soon have caused the trenches to collapse, suggest that this feature of the site was used between about 50 and 20/15 B.C.[35]

The central point of the crossed trenches was interpreted by Debord, Lambot and Buchsenschutz as a ritual deposit. They imagined the four arms of the cross being covered in a continuous row of shops, with counters in the centre aisle serving devotees as they approached a sacred central point.[36] In their reconstruction, wooden flooring would have covered the central trench,

34 Debord 1989: 25-26, figs. 1 and 5.

35 The exact chronology of the site, and its relationship to the *oppidum* at Pommiers are disputed. See Debord, Lambot and Buchsenschutz 1988: 132; Debord 1995b.

36 Debord, Lambot and Buchsenschutz 1988: 134.

and posts supported a thatched roof that covered both the central shops and two pathways that flanked it on either side. This reconstruction allows for an enormous length of shop frontage – far more, in fact, than any pilgrimage site could possibly warrant. Moreover, it is difficult to see why the floor of this shopping gallery would need to be mounted on top of a trench. A new reconstruction and interpretation for both this strange feature and the entire site of Villeneuve-Saint-Germain has recently been put forward by Christian Peyre. His reconstruction, which sees the feature as a sort of enormous voting apparatus, also includes an entirely new interpretation of the miniature wheel, to which we will return shortly (**2.8.2**).

2.3.4 Villeneuve-au-Châtelot, Aube, France

Another large assemblage of model wheels comes from the Iron Age sanctuary at *Villeneuve-au-Châtelot* (Aube), that was excavated in various campaigns in the late 1970s and early 1980s.[37] The site is a fairly typical Iron Age sanctuary, with two parallel trenches enclosing a rectangular sacred area of 15 x 20 m, in which various post holes and a large central pit were located. Both the border of trenches and the pit seem to have been used primarily as containers for votive offerings, including mutilated weapons, coins and animal bones.[38] Datable material from the site suggests that its occupation began in the third century B.C. and ended in the middle of the first century A.D.

As of 1985, the total number of model wheels found at Villeneuve-au-Châtelot was around 40,000.[39] A more specific breakdown was reported in 1981, when 310 bronze wheels, 32 silver wheels, and c. 25,000 lead wheels were known. All but two of the silver wheels were part of a hoard of 1,128 Iron Age and Augustan period coins found in two ceramic vessels between the two parallel trenches.[40] The bottom layers of the outer temenos trench contained bronze wheels and late Iron Age coins only. The interior trench contained a few bronze wheels, most of the lead wheels, and coins dating from the late Iron Age to the reign of Tiberius.[41] This seems to match the evidence at Villeneuve-Saint-Germain that the large scale deposition of simple lead models is a later development preceded by the deposition of more sophisticated bronze types.

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37 Piette 1981; Veillon 1987; *Gallia* 35.404 (1977, Frézouls); *Gallia* 37. 417-419 (1979, Frézouls); *Gallia* 39.397-399 (1981, Frézouls); *Gallia* 41.368-371 (1983, Frézouls); *Gallia* 43.364 (1985, Neiss). The area is also known as '*Les Grèves*.'

38 Piette 1989: 254.

39 *Gallia* 43.364 (1985, Neiss).

40 *Gallia* 33. 402 (1975, Frézouls). The ritual nature of this hoard is underscored by the fact that most of the coins had been mutilated with two chisel marks. On the ritual mutilation of coins see Kiernan 2001. The more specific breakdown of model wheel numbers can be found in *Gallia* 39.397-399 (1981, Frézouls).

41 Piette 1981: 371-372.

2.4. Individual or Notable Finds of Model Wheels

The sites discussed above represent the most important discoveries of large groups of miniature wheels, but individual examples and small groups of wheels have been found in both sacred and profane contexts throughout the entire study area. A few examples will suffice to illustrate this point.

A temple site in insula 17 at Augst in Switzerland (*Augusta Raurica*) produced several miniature wheels along with pottery dating from the first to third centuries A.D. These included one large bronze wheel (dm. 80 mm, **fig. 2.5.iii**) in two pieces that bore a punctim inscription along the rim: ...]RMA[ ] PER BENEFICARIVS V[S] L [M].[42] Thus this wheel model was dedicated by a Roman soldier as part of the *solutio* to a Roman style vow. Whether it was a free standing wheel model, or part of a chariot or wagon connected to a group of bronze statuettes is unclear.

Comparable to the Augst model is a miniature wheel found in a pit next to the Romano-Celtic sanctuary at Matagne-la-Petite in Belgium (**fig. 2.5.i**). In this case the model is made of tin, and is slightly smaller (dm. 52 mm), but it also bears an inscription along the rim: IOVI OPTIMO MAXIMO. The centre of the Matagne wheel is hollow on one side only, making it less likely that the wheel was pierced by an axel and formed part of a miniature cult wagon. The *cella* of a pre-Roman wooden temple was excavated near the pit in which the tin wheel was found, and contained an uninscribed bronze wheel, and four simple lead wheels of four spokes joined together in their casting tree. These older artefacts are strongly suggestive of continuity in cult practice between the pre- and post-Roman periods of this site.[43]

Two bronze wheel models have been found in very recent excavations near the temple of Grange-des-Dîmes in Avenches (*Aventicum*), where earlier excavations had also produced three model axes.[44] In 1993, a small square building was found next to the main Romano-Celtic sanctuary. At the centre of this building, arranged at the corners of a 4 x 4 m square, were four square masonry pillars. The centres of these pillars had been left hollow, and they were presumably intended to support four large upright wooden beams, which were removed at a later stage, though the exact purpose of this feature is quite uncertain. The debris filling the square cavities inside the four pillars contained sherds datable to the second half of the first century A.D., seven coins of the Flavian dynasty, and the two miniature wheels. Both of the wheels are bronze, have six spokes, and measure 37 and 31 mm in diameter. The smaller example has a large central knob.[45]

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42 Green 1984a: 49, 316 Cat. Nr. A140. Augst Römermuseum Acc. Nr. 1937.842; Schallmayer 1990b: 91, no. 99.

43 de Boe 1982: 14, fig. 4.41-42 and 41 fig. 13.2 and 15.

44 On the temple in general see Bögli 1996: 16-21; Drack and Fellmann 1988: 341-342; in this book the axe is **SU6.i-iii.**

45 On these recent excavations see *Bulletin de l'Association Pro Aventico* 46.184-187 fig. 7 (2004, Morel and Mazur).

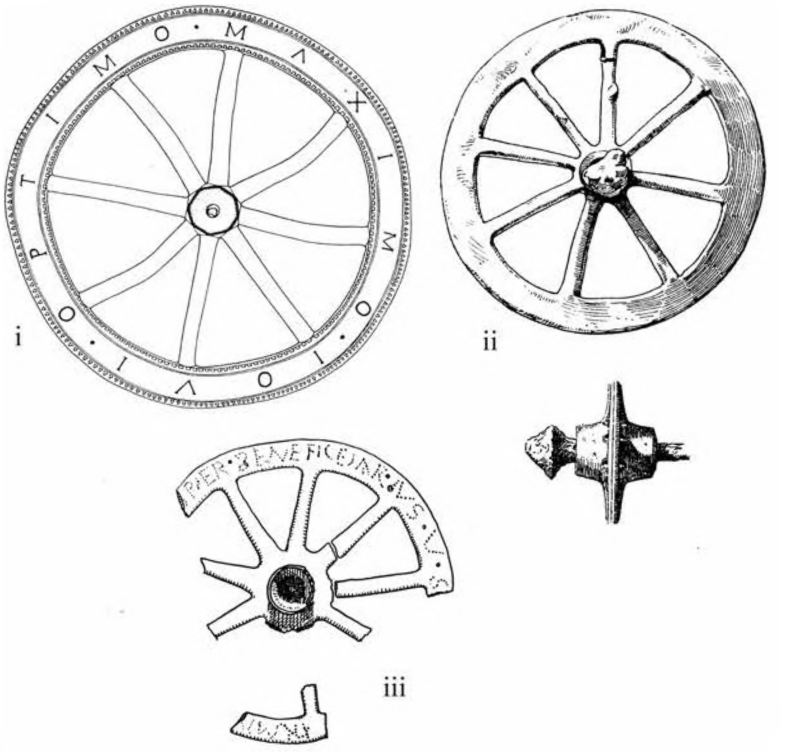

Fig. 2.5. Three miniature wheels. i: tin, from Matagne la Grande; ii: bronze, from Böhming; iii: bronze, from Augusta Raurica. i-ii: 1:1 and iii: 1:2. (After i: de Boe 1982: fig. 15; ii: ORL 73a. pl. 2.1 and 1a (1906, Winckelmann); iii: Schallmayer et al. 1990: 90).

Though wheel fibulae are quite common, true wheel models are rare on the German *limes*. Two large bronze wheels, both with eight spokes were found in the north east gate (**fig 2.5.ii**, dm. 85 mm) and the vicus bath (dm. 90 mm) of the small fort at Böhming.[46] The remains of iron axels pierce the centre of both wheels. The fort at Böhming was probably built the same time as the nearby camp at Pfünz, *i.e.* A.D. 90, and was abandoned in A.D. 234. An inscription found near one of the fort's gates mentions the reconstruction of parts of the fort in A.D. 181, including the gates and their towers (*portas cum turribus*).[47] It is possible that this provides a *terminus post quem* for the wheel found in the north-east gate, but the excavation reports are not clear on the stratigraphic level of the find. The fragmentary axels in these two models strongly suggests that they were once parts of miniature wagons or chariots rather than true free standing wheel models like those discussed above. If this is correct, then they were probably associated with other bronze statuettes as well.

46 *ORL* 73a. 9.3. Nr. 2-3, Pl 2.1, 2.1a and 2.7 (1906, Winckelmann); Green 1984a: 315 cat. no. A123.

47 *CIL* 3.14370.

At least six model wheels have turned up at the Roman *vicus* at Liberchies in Belgium. The first example is a small (dm. 10 mm) lead wheel of four spokes, and the second find consisted of four similar wheels joined together by their spokes in a single cast line.[48] Neither of these objects can be attached to a specific findspot within the vicus, but the excavation of a building identified as a tannery also produced a bronze wheel with six spokes.[49] All of these finds must be considered as coming from Roman period contexts, as Liberchies was founded in 30 B.C. as a Roman relay post on the Bavay-Tongres road, and was abandoned in the third century A.D.

Another example from Belgium comes from the excavation of a Roman villa at Treignes, in Namur. This single lead wheel of four spokes is notable both for its domestic find spot and late dating. The site lacks the Iron Age occupation level present in other sites with wheel models, and the wheel was found in a destruction heap dated to the second century A.D. The excavators interpreted the wheel as a left over from the earliest occupation of the site in the late first century A.D.[50]

Large deposits of wheel models seem to be unknown in Britain, though small groups and individual examples do occur. These include two bronze wheel models in a large collection of metal objects thought to come from an unexcavated temple site at Great Walsingham in Norfolk. One has a large round central knob, and the other is pierced both in the centre and on the rim. Another miniature wheel was found in a hoard of bronze items buried in a pot at Felmingham Hall, Norfolk, along with a coin datable to A.D. 260.[51]

2.5. Metal Rings as Miniature Wheels?

Having considered examples of mass deposits and individual finds of wheel models, we may now turn to the question of metal rings, which are often described as their equivalents. Apart from their basic shared circularity, there is evidence in Iron Age art to suggest that the wheel and circle motifs were interchangeable. Wheels appear on numerous Iron Age coins, sometimes as a free standing ornament, but sometimes as part of a design, as on issues that copy the staters of Philip of Macedon that depict a charioteer on the reverse. As these derivative designs become more and more Celtic in appearance, the wheel of the chariot drifts underneath the horse, and varies from being a true spoked wheel, to a ring and dot motif, or a plain ring (**fig. 2.8.iii**).[52] This suggests that wheel and ring were iconographically synonymous. In addition to this, a few sites yielding large numbers of wheel models have also produced bronze and lead rings. These

48 Doyen 1984: 25, figs. 1a and 1b.

49 Brulet, Dewert and Vilvorder 2001: 18-23, 78 no. 39 fig. 54.39. (Found in the area known as Bons-Villers. The object is now lost.)

50 Doyen 1985: 20-21. Green 1984a: 317 Cat. No. A155.

51 Great Walsingham: Bagnal-Smith 1999: 34 nos. 22-23, pl. 6.D-E. Felmingham Hall: Green 1984a: 323 Cat. No. AB5. The hoard is now the British Museum, Acc. No. 1925.6-10,1-23.

52 Allen 1980: 138 and 190. For examples see his plates 16.216 and 223, 17.225, 18.241, 246 and 247, 31.462 and 467, 32.475, 33.490, 35.527, 38.547, and 575.

include Boviolles (**2.3.1**), Nanteuil-sur-Aisne (**2.3.2**) and even Manching.[53] But these sites are exceptions, and metal rings are more commonly found in large numbers in sanctuaries that have not yielded miniature wheels. In France, they include Fesques (Seine-et-Marne), Mesnil de Baron-sur-Odon (Calvados), Digeon (Morvillers-Saint-Saturnin, Somme), Chastelard les Lardiers (Alpes de Haute-Provence), La Peiro de L'Autar (Var) and Viuz-Faverges (Haute Savoie).

The Iron Age sanctuary at Fesques was founded in the third century B.C., and remained in use until the middle of the first century A.D.[54] Some 59 bronze rings were found both on the surface and in various ritual pits and trenches within the site's sacred enclosure. The rings range between 8 and 30 mm in diameter, and have cross-sections that can be flat, round, oval, and triangular. Excavations of the very different Romano-Celtic sanctuary at Mesnil de Baron-sur-Odon were far less extensive than those at Fesques, but the 400 bronze rings brought to light are practically identical to those found at Fesques. This unusual site lacks a cella, but consists of a double and decagonal gallery in stone masonry, that probably had wooden porticoes on both the interior and exterior, and an entrance on the east side. Like the covered gallery at Villeneuve-saint-Germain described above, the galleries at Mesnil de Baron-sur-Odon must have been primarily intended for perambulation or other ritual processions. At least 150 of the bronze rings were found in a single deposit situated between the two walls at the south end of the structure.[55] Activity on the site probably began around 50 B.C. and ceased around A.D. 150. Other structures added to the galleries in the early fourth century A.D. seem to have served purely profane functions, and represent a later phase in the sites usage.[56]

The sanctuary of Digeon is even less well documented than Fesques or Mesnil de Baron-sur-Odon. It was founded no earlier than 75 B.C. and was probably occupied until at least the fourth century A.D. The 60 or so metal rings found here have diameters similar to those described above, but are composed of a lead alloy (potin) rather than bronze (**fig. 2.6.i**). The presence of model fibulae and fingerrings (see **7.1**), and perhaps also model coins on this site (**5.2** and **5.3**) suggests that these particular rings were not necessarily variants of the model wheel.[57] They may also have been symbolic representations of coins or jewellery.

In the south of France, bronze rings were found in the sanctuary at Chastelard les Lardiers, La Peiro de L'Autar, and Viuz-Faverges. The hilltop site at Chastelard was occupied as a fortified oppidum site until the middle of the first century A.D. After regular habitation ceased, a Romano-Celtic sanctuary complex remained in

53 de Widranges 1861: 4-5; Lambot 1989: 42, 3.1.4, fig. 7-8. On Manching see van Endert 1991: 104.

54 Devillers 1997: 235-237, figs. 13-15.

55 Bertin 1977: 81, figs. 11-13.

56 Bertin 1977: 84-88. For a more complete bibliography on the site see *CAG* 14 (Le Calvados) 261.74-75 (1990, Delacampagne).

57 Jobic 1986: 104 figs. pl. 4.30-34.

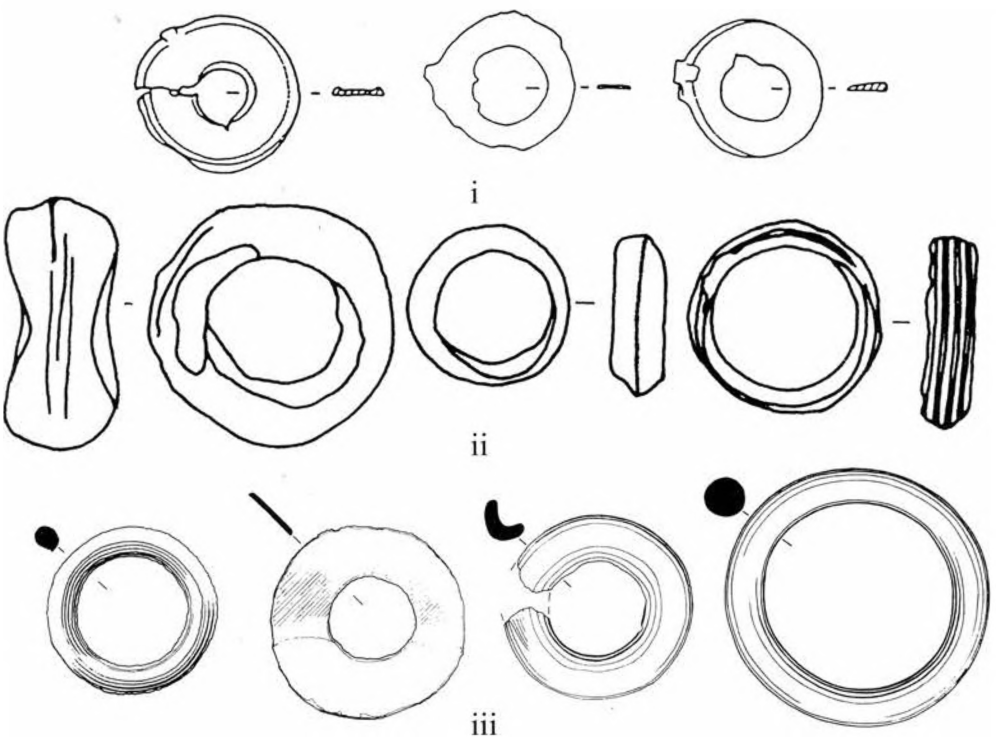

Fig. 2.6. Metal rings. i: Viuz-Faverges, lead; ii: Digeon, bronze; iii: Uley, copper alloys. All 1:1. (After i: Rébiscoul 1993: 28; ii: Jobic 1986: fig. 4; iii: Bayley and Woodward 1993: figs. 114 and 115).

use on the site until the end of the fourth century A.D. Excavations of this complex have yielded 10,000 bronze rings, some of which seem to have been intentionally broken. A more puzzling, though possibly related find, are the 5,000 thin bronze plaques of various shapes all of which have circular holes punched in the centre found at Chastelard.[58] Similar offerings of rings and pierced plaques were found in 1998 scattered around a prominent stone in an outcrop at La Peiro de l'Autar. Associated coins and pottery suggest that this natural offering place was largely frequented around the end of the Iron Age.[59] Rings and pierced plaques were found at Viuz-Faverges (**fig. 2.6.i**), but were far fewer in number, and were made of lead rather than bronze. Most of the rings were found in a trench lined with stone walls that also contained numerous small ceramic vessels and coins. The sanctuary seems to have included multiple shrines, living quarters, and even metal workshops. It was occupied from the Augustan period to the fourth century A.D.[60]

58 *CAG* 4 (Les Alpes-de-Haute-Provence) 101.3*.239-251 (1997, Barruol) esp. 246-248, figs. 210 and 211.

59 *CAG* 83/1 (La Var) Cuers 49.4*.369-370, figs. 329-330 (1999, Brun).

60 Rébiscoul 1993: 17 (the trench near structure 50), 23 and 28 (with illustration); *CAG* 74 (Haute Savoie) 123.23*.241-242 (1999, Bertrandy). Neither account gives the exact numbers of rings found. My thanks to Joel Serralongue of the Archaeological Service in Haute-Savoie and

While large deposits of wheel models are unknown in Britain, some 50 metal rings were found at the Uley shrines in Gloucestershire (**fig 2.6.iii**). They are remarkably similar in form to those from Fesques and Mesnil de Baron-sur-Odon. They were produced in a number of different ways, some cast in open moulds, and others hammered or stamped out of thin sheets of bronze. Rings produced by the latter method were often filled with lead to give them added weight, while those cast in open moulds have rough file marks on the back. Bayley and Woodward proposed that the rings were mass produced, and meant to be seen on one side only. They seem to have been strewn across the site, and most were found out of context in post Roman levels. The earliest stratified example dates to the sanctuary's third phase (A.D. 50-100), and the presence of the other rings in the later levels is presumably the result of contamination.[61]

It is tempting to see groups of metal rings as regional variations of the miniature wheels, particularly when they seem to occur in at least two regions where mass deposits of miniature wheels are absent. For the moment, however, there is not enough evidence to fully support this hypothesis. Many bronze rings will have served a variety of purely utilitarian functions, but the sizes of the deposits, and the flimsiness of the lead filled rings from Uley and Digeon tend to suggest a purely ritual function. A closer look at sites that produced both wheels and rings, and the contexts of the rings within sanctuaries, may decide this question one way or the other. Any future study of miniature wheels will certainly need to take metal rings into account.

2.6. Moulds, Metals and Production Techniques

At least six moulds for casting wheel models are known, carved in a variety of materials. They have been found at Augst (roof tile), Martberg bei Pommern (sandstone) Variscourt (sandstone); Allègre (terracotta); Gateshead (stone) and Feurs (stone).[62] It is not clear whether all of these moulds were used to produce votive wheels, or wheels that were later attached to plate brooches. The mould from Variscourt, sadly without archaeological context, is the damaged half of a multifunctional bivalve mould. On one side of the Variscourt mould is a large eight-spoked wheel with a diameter of about 56 mm. On the opposite side of the same block are impressions of four wheels, each with four spokes, and diameters of about 24 mm. These smaller wheels are joined by their spokes, just like the cast strips of lead wheel models mentioned above. Vertet, Périchon and Perrot

Alain Piccamigilo and Michel Duret from Les Amis de Viuz-Faverges for sending me a copy of their bulletin no. 34.

61 Bayley and Woodward 1993: 135-140, figs. 114-115. The earliest stratified example is find no. 5602.

62 Augst: Green 1984a: pl. LVII, fig. 14, cat. nr. AB126; Martberg: Thoma 2006: 48, fig. 28; Variscourt: Lobjois and Ancien 1978: 3-6; Allègre: *CAG* 30/2 (Le Gard) 007.134-5, figs. 71-2 (Pène, 1999). This mould also included a duck and a crane, both with suspension loops, and another circular pendant; Feurs, Rhône-Alpes: Vertet, Périchon and Perrot 1969: 332-333; Gateshead (by Newcastle): Green 1984a: 63, Cat. Nr. AB22.

argued that stone moulds would have been inappropriate for casting anything but lead, and that they were probably used to cast wax models that were subsequently used to in the *cire-perdu* casting technique.[63] The claim is hard to verify, but is not implausible. It is also possible that the common lead wheel models were produced in perishable wooden moulds, just as modern lead spindle weights were.[64]

A study of the lead isotopes of model wheels from Liberchies, Treignes and Villeneuve-au-Chatelot has been conducted by Cauet and Doyen. Their analyses showed that the wheels from these three sites probably used lead stemming from the same geological source.[65] This observation is a long way from proving that the wheel models were produced in a central workshop, as their study is based on wheels from three sites in northern Gaul alone. Local production still seems more likely, even if the metal was obtained from a common supplier or mine. A chemical analysis of six lead wheel models from Manching found that they were composed of a remarkably diverse set of alloys. Van Endert interpreted these results as an indication of production in several workshops.[66] The bronze rings from Uley have also been subjected to analysis and found to show similar variation, which Bayley and Woodward saw as evidence that the makers simply used 'whatever metal came to hand.'[67] This is perhaps the most sensible explanation for differences of alloy within the models. Though the observation is unrelated to the technical aspects of their production, Green has suggested that the high content of tin and zinc in various copper alloy wheel models was intentional, and meant to give the models a particularly bright yellow colour.[68]

2.7. Distribution and Dating

The above discussion of select sites and finds is far too short to establish anything conclusive about overall distribution or even the type of sites on which wheel models are found. Large scale deposits of wheel models seem to be most common in the north of France, but if metal rings are indeed the equivalent of the miniature wheels, then the phenomenon is far more widespread. Such large scale deposits do seem to be limited to arguably ritual sites, such as Romano-Celtic sanctuaries, or the trenches at Villeneuve-Saint-Germain and the river deposit at Orléans. Surface finds on settlement sites such as Liberchies or Treignes do not necessarily contradict the ritual nature of the wheels. They may be from dress accessories, domestic shrines, or represent displaced material from as of yet undiscovered temples. Both individual wheels and small groups can be found throughout the entire study area.

63 Vertet, Périchon and Perrot 1969: 332.
64 Chevillot and Moissat 1994: 96-98.
65 Cauet and Doyen 1987: 2-3.
66 van Endert 1991: 18.
67 Bayley and Woodward 1993: 140.
68 Green 1984a: 86-87.

Fig. 2.7. Map of sites discussed in this chapter. In no way representative of overall wheel distribution.

The sites discussed in this chapter present a fairly consistent picture of the chronology of miniature wheels. In burials, miniature wheels appear at the beginning of the late Iron Age, *e.g.* at Wederath and Basel, and continue into the very early Roman period, *e.g.* at Dury. Large deposits of both wheel models and rings on ritual sites typically belong to the end of the Iron Age and the first century A.D. The stratigraphy at both Villeneuve-Saint-Germain and Villeneuve-au-Châtelot suggests that the more intricate bronze wheels were replaced by smaller four spoked lead wheels in large deposits at some point in the late first century B.C. or early first century A.D. At other sites, such as Avenches and Matagne-la-Petite, we have evidence that individual miniature wheels were deposited in ritual contexts until at least the end of the first century A.D., and perhaps even later. This suggests a reversion to the use of larger bronze models when making single personalized dedications.

2.8 Interpretations of the Wheel Models

2.8.1 As Pieces of Model Chariots or Substitutes for Chariots

It has never been proposed that wheel models are fragments of miniature chariots or wagons. With so many thousands of model wheels, one would expect some other traces of the model wagons to have survived as well, and practically no miniature wheels include spokes. The smaller and cruder lead models are also unfit to have been parts of anything at all. Only the larger models from Böhming, and possibly the inscribed wheel from Augst, might have fulfilled such a role.

As pieces of real chariots and four wheeled transport wagons have been found in both sanctuaries and graves in the late Iron Age, the possibility that model wheels were substitutes for offerings of life-sized chariots ought to be considered. Finds from the La Tène deposit itself include various iron and wooden chariot parts, notably well preserved wooden wheels, and at least two model wheels, but no miniature weapons. The same is true of the sanctuary at Blicquy, where life-sized wheel fragments and a chariot lynch pin have been recovered.[69] By the time of Caesar's campaigns in Gaul, chariots were no longer employed in battle by the Gauls, and the use of chariots which Caesar describes in Britain seems to be an insular archaism.[70] The problem with seeing the wheel models as substitute's for chariot offerings is that the sites with wheel models do not also include model weapons such as shields, spears and swords, or vice-versa. Nor, as we shall see, do sites with model weapons typically include wheels.

69 Vouga 1923: 89-102 (chariots) and 69 (model wheels), pl. L.1 and 23. Vouga does not say how many of the models were found, though he mentions finds with both four and eight spokes. Blicquy: Demarez and Leman-Delerive 2001; Gillet, Demarez and Henton 2001.

70 Caes. *B. Gall.* 4.33; Brunaux and Lambot 1987: 118.

2.8.2. Miniature Wheels as Voting Ballots

The most recent, and certainly the most original theory concerning miniature wheels has been put forward by Christian Peyre, who was specifically interested in the site at Villeneuve-Saint-Germain.[71] Peyre has proposed that the cross shaped trenches on the site actually represent a complex mechanism for tribal voting. He argued that the sides of each trench formed a passageway along which the members of the eight *pagi* of the Suessiones were funnelled towards a central point. The lines of post holes belong to fences that lined these passageways. At the central point, voting counters in the form of miniature wheels or glass beads were deposited in urns or other containers, thus explaining the concentrations of these finds at the central point of the feature. The entire structure was lent enormous symbolic value by its shape, which represented the territorial divisions of the civitas converging at a single point.[72] In a broader context, Peyre saw the entire enclosure at Villeneuve-Saint-Germain as a sort of ritual field in which feasting, athletic games, and voting took place. It was not permanently settled, but was only used occasionally by the inhabitants of the nearby oppidum site at Pommiers.[73]

In support of his idea of miniature wheels as voting counters, Peyre compared the features of Villeneuve-Saint-Germain to the *saepta Iulia* in Rome, which also functioned by herding the voters like sheep.[74] Moreover, he noted that the voting tokens of the Athenian jurists, the *heliastes*, also took the form of small round bronze discs with a thickened central axis.[75] The need to accommodate large numbers of participants in Celtic trials he found in a passage of Caesar that describes the trial of Orgetorix, who having been placed on trial, was supported by family members, clients and debtors, numbering no less than 10,000.[76] Finally, a Celtic inscription from San Bernardino di Briona seems to record the construction of a funerary monument 'by the decision of the tribe' with this phrase being underlined by four inscribed wheels motifs.[77]

In spite of its originality, Peyre's interpretation of the site at Villeneuve-Saint-Germain and the miniature wheels as voting ballots is quite implausible, if only because the use of a democratic style juristic or political system is entirely unknown amongst the Gauls. Caesar does not record that the supporters of Orgetorix voted for his innocence, but rather that they ensured that he would not

71 Peyre 2000.

72 Peyre 2000: 169.

73 Peyre 2000:184-202. Peyre came to this conclusion by discussing a bilingual Celtic/Latin inscription from Verceil and drawing on diverse literary evidence. His complex arguments are not particularly relevant to the idea of the wheels as voting counters.

74 Peyre 2000: 165-69. See also *LTUR* 4.228-229 *s.v. Saepta Iulia* (1999, Gatti). Its actual form is unclear, but it does not closely resemble the structures at Villeneuve-Saint-Germain.

75 Peyre 2000: 175-176.

76 Peyre 2000: 175; Caesar *B.Gall.* 1.4.

77 Peyre 2000: 175-178, fig. 18.The Celtic phrase is *takos toutas*.

need to speak his case at all: "... *per eos ne causam diceret se eripuit.*"[78] The sense of the text is that the mass of Orgetorix's supporters frightened the judges away, not that they prevented a judicial vote from taking place or outnumbered the guilty votes.

If the wheels found at Villeneuve-Saint-Germain were indeed voting ballots, for trials, elections, or other public business, then they were very carelessly handled for so many of them to end up lost in the trenches and elsewhere on the site. The uncut rows of lead wheels and their overall crude nature also add to the improbability of Peyre's theory. They are a stark contrast to the ballots of the Greek *heliasts* which are much more complicated bronze objects, with differentiated sides and inscriptions.

Peyre's reconstruction of the structure covering the trenches at Villeneuve-Saint-Germain as a mechanism for herding people to a central point, however, is far more convincing than the original proposal that the trenches were covered by a row of shops. His idea of different geographic units of the *civitas* converging on a central point is certainly not without merit. Processions and perambulation were clearly part of Iron Age communal religious practice, as the peripheral galleries of Romano-Celtic temples suggest.[79] The large number of models found on this site, and the enormous size of the processional feature, may well be evidence for a massive communal ritual.

2.8.3. As Coins or Substitutes for Coins

As early as 1861, Hippolyte de Widrange published a small booklet on the topic of miniature wheels and rings, arguing that they were a form of Celtic coinage. Apart from the presence of wheels amongst large coin finds, de Widrange saw the ultimate proof of this interpretation in an alternative reading of a passage in Caesar's *Gallic War* in which the inhabitants of Britain are described:

> *Utuntur aut aere aut nummo aureo aut anulis ferreis ad certum pondus examinatis pro nummo.*
>
> They use either bronze or gold coins, or iron rings of a confirmed weight instead of coins.
>
> Caesar *B. Gall.* 5.12.4. (my translation)

The more usual reading of the manuscripts has *taleis* in the place of *anulis* – *i.e.* iron bars. This reading also finds a better archaeological parallel in the form of the iron currency bars. These roughly sword-shaped iron currency bars are fairly common finds on late Iron Age sites, in ritual deposits and hoards. They were probably meant primarily as a means of transporting raw iron, but doubled as a

78 Caesar *B.Gall.* 1.4.

79 Fauduet 1993: 133-134.

simple medium of exchange.[80] Even if the passage in Caesar does refer to rings, it can hardly refer either to the miniature wheels or rings, which are never made of iron, and are not limited to Britain.[81]

The occurrence of coins and miniature wheels together at sites such as Boviolles and Villeneuve-au-Chatelot was seen by Widrange and others as further proof that the two find types served the same purpose.[82] Forrer even suggested that the miniature wheels were based on the wheel that appears on the reverse of certain Greek coins struck in Marseille.[83] The fact that the Gallic potin coinage of the late Iron Age is contemporary to many of the miniature wheels has also been seen as support for the monetary interpretation of miniature wheels. The locally produced potin coins were undoubtedly a token coinage that served as small change in the late Iron Age monetary system; like the miniature wheels, potin coins were also cast.[84]

Today, the idea of model wheels as coins is generally disregarded, but it was hotly debated by numismatists and archaeologists in the late 19th and early 20th centuries.[85] Not only are the forms of miniature wheels and rings quite removed from that of Iron Age coins, they also lack standardised weights and sizes. Being cast, the lead and potin wheels would have been remarkably easy to forge, and many of the wheel models are far too small to have been a practical currency. Finally, the use of miniature wheels as amulets predates the appearance of the earliest Celtic coins.

2.8.4 Miniature Wheels as Amulets

The theory that wheel models were coins was countered by the argument that all miniature wheels were protective amulets worn by the Celts.[86] This hypothesis has most recently been adopted by van Endert in her discussion of the miniature wheels from Manching.[87] We have already seen (**2.2**) the use of wheel models as dress ornaments confirmed by their presence in burials, sculpted depictions of figures wearing wheels, and the incorporation of the wheel motif in various pendants and fibulae. Even plain wheel models could have been attached to clothing by the gaps between their spokes, or by threading them onto the pins

80 Hingley 1990 and 2005.

81 Nor is it particularly likely that Caesar would have used the word *anulis* to describe wheels. The correct word for wheels, *rota*, occurs twice in the Gallic War (*B.Gall.* 4.42 and 1.62), in both cases referring the wheels of chariots.

82 de Widrange 1861; Forrer 1908: 645 s.v. *Rädchen*; Déchellete 1914: 1299-1300, though Déchelette also recognised their role as amulets.

83 Forrer 1908: 74.

84 Allen and Nash 1980: 24-25, and 104-105; Forrer 1908: 74

85 Against this idea was Blanchet 1905: 28. A full bibliography of the earlier literature is not possible here, nor particularly useful. For further references see Veillon 1986, and Reinach 1894: 31-36.

86 The first proponent of this theory seems to be De Mortillet 1876 (*non vidi*). Déchellete 1914: 1297-8) also recognised that some wheel models must have been worn.

87 van Endert 1991.

Fig. 2.8. i) Reconstruction of one of the sets of head gear from Wanborough; ii) Silver coin of the Atrebates; iii) Coins of the trans Paduan Boii; iv) Wheels amulet and helmets from a tropaion and battle scene on the Arch of Orange.
(i-ii: O'Connell and Bird 1994: pl. 10 and pl. 17, iii: De la Tour 1892: pl. 51.9936 and 9921, iv: After Amy 1962: pl. 43).

of fibulae or stringing them into necklaces. The use of the wheel motif in plate fibulae, and spectacular objects such as the headdress from Wanborough (**fig. 2.8**) shows that wheels continued to be used in dress in the Roman period as well.

The specific meaning of wheel models as amulets, however, is unknown in both the Iron Age and Roman periods. Were they purely decorative, or were they associated with a particular religious concept? Van Endert noted that both the early and late Iron Age wheel models from Manching were found exclusively in female burials.[88] If this is correct, and holds true for the Roman period and other Iron Age sites as well, then the observation is a major clue as to the meaning of the wheel symbol as a worn pendant.

But it is most unlikely that all of the wheel models were once worn as amulets. The tiniest examples, and the strips of four-spoked lead wheels could not possibly have been worn. It also seems improbable that the massive deposits on sanctuary sites were all somehow attached to the clothing of individual worshipers. These deposits must represent votive offerings, and many of the miniature wheels were manufactured specifically for this purpose. The meaning of the wheel models as offerings and amulets is probably rooted in their symbolic value, a factor that we must now consider more closely.

2.8.5. The Symbolism of the Wheel

The significance of the wheel as a symbol in Italic, Greek, Scandinavian and other pre-historic European cultures is virtually undisputed. It is universally recognized by archaeologists and art historians as representing the disc of the

88 van Endert 1991: 16.

sun. By association, the swastika, spiral, St. Andrew's cross, and circle and dot motif have also been placed in the realm of solar iconography. The similarity in shape of the wheel and the sun, the movement of both, and the common motif of a solar chariot moving across the sky are the basic ideas behind the symbol.[89] One of the most famous prehistoric uses of the wheel in solar iconography is the Trundholm chariot group from Denmark, which dates to about 1,300 B.C, and consists of a bronze horse pulling a cart in which a gold plated bronze disc is mounted.[90] In northern Italy, Bronze and Iron Age rock carvings of men, animals and houses often depict the sun as a dot and circle, which is eventually replaced with a four spoked wheel from which rays sometimes emanate.[91]

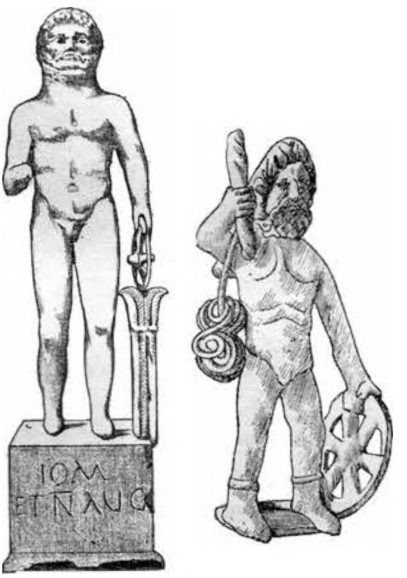

Fig. 2.9. Representations of the Jupiter/ Wheel-god. i: Bronze statuette from Landouzy-la-Ville, H. 23 cm; ii: Bronze statuette from Villeneuve le Châtelet, H. 14 cm. (After Reinach 1894: nos. 4 -5).

In the Romano-Celtic period, the wheel appears on a variety of altars, *stelai*, and other monuments that combine Roman and Celtic iconography.[92] Representations of Jupiter on top of the Jupiter-Giant columns often depict the god as horseman carrying a wheel in his left arm, or seated on a throne that is decorated with a wheel on its side.[93] Two bronze statuettes (**fig. 2.9**) from Landouzy-la-Ville (Aisne) and Le Châtelet (Haute-Marne) also combine the classical attributes of Jupiter with the Celtic wheel. It is clear that there was a pre-Roman god whose main attribute was a wheel, and that this god was identified as Jupiter by the Romans. The inscription I. O. M. ET N AVG on the base of the bronze statuette from Landouzy-la-Ville is only one of

89 Green 1984a:15-43, and 130-132; Green 1986a: 68; Green 1989: 164-167; Déchellete 1913: 885-898 and 1924: 464-469. On wheel symbolism in Bronze Age Scandinavia see Gelling and Davidson 1969.

90 Green 1984a: 17-18; Gelling and Davidson 1969: 14ff, *frontspiece*.

91 Green 1984a: 21 with further bibliography.

92 Green 1984a: 122-4. Examples include altars from Cologne (Green 1984a: B29; Espérandieu 6380) and Nimes (Green 1984a: B95; Espérandieu 428). Representations of wheels also appear on altars dedicated to other gods, but only in five instances (Erge, Mars Condatis, Belenus, Minerva and a genius, Genius and the standards).

93 Green 1986b: 67-68. Examples of Jupiter-Giant columns with wheel symbolism are known from Obernburg, Bavaria (Green 1984a: B102, Bauchhenß and Noelke 1981: 199 no. 406, pl. 40.2); Meaux, Seine-et-Marne (Green 1984a: B77, Espérandieu 3207); Butterstadt, Hessen (Green 1984a: B19; Espérandieu germ. 76; Bauchhenß and Noelke 1981: 110-111, no. 97, pl. 11.2); Alzey, Rheinland-Pfalz (Green 1984a: B4; Espérandieu 2375; Bauchhenß and Noelke 1981: 90, no. 17, pl. 4.2).

many inscriptions that confirm the connection between the Celtic wheel god and classical Jupiter.[94]

The exact significance of the wheel symbol in the Romano-Celtic period, however, has been hotly debated.[95] The main question is whether the wheel represented rolling peals of thunder, and was the main attribute of a Celtic thunder god named Taranis, or retained its earlier meaning as the disc of the sun. Taranis is also identified as Jupiter in inscriptions, and the wheel is often found in stone carvings alongside lightning bolts. Perhaps one of the strongest connections between the wheel and the lightning bolt, noted by both Hatt and Green, is a fragmentary altar from Mont Mirat (Gard). The altar depicts a wheel and bears the partial inscription: *(fulgur) conditum.*[96] Similar stone monuments with complete versions of this inscription are fairly common throughout the Roman world, and presumably mark the spot where lightning had hit the ground.[97]

In 1910, Joseph Déchelette, the father of French archaeology, concluded that the wheel continued to represent the sun in the late Iron Age and Roman periods, just as it had done in ealier prehistory. Déchelette's authority more or less laid the matter to rest for more than 40 years, until the debate was only re-opened in 1951, when Hatt suggested that the wheel could simultaneously represent thunder, lightning, and the sun. In addition to its use beside lightning bolts on monuments such as the altar from Mont Mirat, Hatt noted that wheels were opposed to half moons on certain grave markers in the Pyrenees.[98] In at least one instance, on otherwise iconographically similar monument, the wheel was replaced by a depiction of sol in his quadriga.[99] Finally, Hatt cited a fascinating incident in the life of Saint Vincent, recorded in the *acta Aginnensis* around the middle of the sixth century A.D.:

> *In Aginnensis quondam urbis territorio, regione Nemetensium*[100]*, quae est una de nobilioribus civitatibus Galliae, sacrilega paganorum turba solito more convenerat, ceremonias non verae religionis, sed falsae seductionis exercere in templo diis suis consecrato. Quo videlicet inhabitantes daemones fallacia sua convenientis ibidem vulgi mentes oculorumque acies fallebant, ut putaret se plebs illa miserabilis aliquid operis divini in simultatibus ludentis diaboli intueri. Nam per eiusdem templi fores, quasi ad nutum alicuius inibi constituti numinis aut, ut verum dixerim, inhabitantis daemonis, rota flammis circumsepta, solita erat prorumpere et a summo collis vertice in praeterfluentis amnis gurgitem, in praeceps*

94 Reinach 1894: 31-35, nos. 4-5; Green 1984a: 439 cat. no. C2 and C3. Green 1986a: 67.

95 For the older literature see Lambrechts 1942, 66-80; Hatt 1951b; Green 1984a.

96 Hatt 1951b: 82; Green 1984a: 337, cat no. B83; *CIL 12*.3023.

97 E.g. *AE* 1990, 0681 (Nîmes), *AE* 1979, 0202 (Picenum) *AE* 1983, 0681 (Bernex, Switzerland).

98 Déchelette 1913: 2.2.885-892.

99 Hatt 1951b: 82-83. The specimen with Sol in the quadriga is Esperandieu 2.1510.

100 Adapting Zwicker's correction of *Metensium*.

deorsum propere devoluta, percurrere rursusque a flumine ad aedem templi devio rotatu vana vomens incendia remeare. (Quae diaboli illusio crucis signo opposito evanuit.)

Once, in the territory of the city of Agen, in the region of Nîmes, which is one of the more noble cities of Gaul, sacrilegious crowds of pagans gathered, as was the custom, in a temple consecrated to their gods to conduct ceremonies; not of the true religion, but of false seduction. It is plain to see that demons residing in this place deceived the minds and eyes of the assembled people with a fallacy of their own, such that the wretched common folk believed themselves to behold a divine act in the games of the teasing devil. For a wheel surrounded by flames would burst through the doors of the same temple, as if at the command of someone there who was filled with the spirit (or to put it more truthfully, who was possessed by a demon), and roll headlong at great speed, going from the very top of a hill into the water of a flowing river, and then return from the river to the building of the temple, spewing empty flames in its devious rotation. (This illusion of the devil vanished when opposed by the sign of the cross).

Text after Zwicker 1936: 302-303 (My translation)

Remarkably similar modern traditions of rolling burning wheels down hillsides in Britain, France and Germany, have been interpreted as the direct descendants of an originally Celtic rite that was still being practised in late antiquity when it was observed by Saint Vincent. These modern festivals generally took place at the very end of winter, or in the height of summer; periods in which rainfall is critical for the growth of crops.[101] According to Hatt, the ritual sought divine aid through imitation of a desired action. The sun, in the form of the burning wheel, is summoned to bring its power down to the land and make it fertile, just as the burning wheel rolls down the hill. Thunder and lightning, also represented in the burning wheel, bring rain with them, and lightning hitting the ground was seen as endowing it with the power to grow crops. By this line of reasoning, it follows then that the ancients must have seen lightning as an emanation of the sun.[102]

In her far more comprehensive study of wheel iconography, Miranda Green also concluded that the wheel was primarily a solar symbol, but she was able to conclusively demonstrate that the wheel god is not actually the same as the Celtic thunder god known as Taranis. None of the inscribed dedications to the

101 For more references to modern folk traditions involving burning wheels see also Gelling and Davidson (1969: 143-145) and Hutton (1996: 311-312).

102 Hatt 1951b: 83-84. Presumably Hatt's interpretation was influenced by Frazer (1932: 612-615, and 644-645) who provides the same explanation of these modern folk tradition. The problem of lightning flashes occurring at night is not addressed by either author.

god Taranis actually include wheel representations, and it is to Jupiter alone to whom the symbol is most frequently connected.[103] Green determined that there was certainly a specific Celtic deity associated with the wheel, but that we do not know his name. On the other hand, thunder bolts and wheels do appear together on Roman monuments, a phenomenon which Green recorded in at least in at least 17 instances.[104] The presence of other pre-historic solar symbols alongside wheel iconography on Roman period monuments led Green to conclude that remained a solar symbol in the Roman period as well. Like Hatt, she saw a fertility aspect in the wheel god, who was responsible for both rain (thunderstorms) and sunshine, which are both needed to make the crops grow.[105] Whatever his pre-Roman name, the Celtic wheel-god was both a solar deity who brought lightning, thunder and rain, and was eventually identified as Jupiter by the Romans.

The contribution of the wheel models to our understanding of wheel iconography is fairly minimal, though the iconographical analysis of the wheel symbol is fundamental to the interpretation of the models. The inscribed wheel models from Augusta Raurica and Matagne confirm the connection between the models, Roman Jupiter and the wheel-god. There does not seem to be any obvious significance to the number of spokes on either stone representations or model wheels. Green thought it possible, however, that the high tin content of some bronze model wheels was meant to give them a bright yellow sun-like appearance. As with stone monuments bearing wheels, some miniature wheels include older solar symbols in their decoration.[106] Circles, knobs, s-shapes and swastikas on some wheels models and wheel *fibulae* may represent emanations coming from the sun, lightning, or may even be indicative of the spinning motion of a wheel.[107]

Green considered it possible that the wheel models served both as votives and pendants, and equated plate fibulae in the form of wheels with true model wheels. As solar symbols, they were placed in graves as a comfort for the deceased, who no longer had access to the real sun.[108] Like many scholars, she automatically classified wheel models as part of a wider phenomenon of miniaturisation that included both model axes (**4**) and the bronze model tools known as the *Mithrassymbole* (**8**) from Cologne. The connection to both artefact types was based on the presence of inscribed crosses, circles and swastikas on the model axes, and the attribution of the *Mithrassymbole* to the eastern sun god Jupiter-Sabazius.[109] As subsequent chapters will demonstrate, the connection is erroneous

103 Green 1984a: 251-264.

104 Green 1984a: 184.

105 Green 1984a: 298.

106 Green 1984a: 60, and 82-3; Lambot (1989: 35) observed that the model wheels from Nanteuil also had a high tin content.

107 Green 1984a: 86-91.

108 Green 1991: 131-133.

109 Green 1984a: 93-94.

since both the *Mithrassymbole* and model axes are quite separate phenomena, requiring their own interpretations.

Green and Hatt's identifications of the wheel models as solar symbols can hardly be doubted, but whether the wheel symbol was meant to represent thunder or the sun is really of secondary importance as far as the miniature votive offerings are concerned. Both 19th and 20th century scholars agree on the more important point, which is that the wheel is the attribute of Romano-Celtic version of Jupiter. Whatever his pre-Roman name or direct associations, the wheel models must have been related to this deity as well.

2.8.6. Other Theories

Though the major interpretations of model wheels have now been discussed, it is perhaps worthwhile to describe a few of the less influential theories, or explanations that combine the ideas presented above.

A number of scholars have sought to find a compromise between the idea of wheel models as amulets and wheel models as coins. Most recently, Veillon has asserted that model wheels functioned simultaneously as amulets and primitive currency, being a sort of prestige object. This view is not dissimilar to that already presented by Chenet in 1919.[110]

Though they did not see the miniature wheels as coins, both Brunaux and Fauduet have raised the possibility that they were substitutes for earlier offerings of weapons and precious metal, including real coins.[111] This argument is surely derived from the older idea that the wheels themselves were coins, which was found implausible. More convincing coin substitutes do exist, and will be dealt with in a later chapter (**5**). Moreover, the wheel models have nothing in common with the other offering types such as weapons, jewellery etc., apart from their occurrence in large groups in sanctuaries. The large numbers of some wheel model deposits, point to a sort of communal activity that is not dissimilar to the Iron Age deposition of precious metal and coins. Miniature wheels were certainly a less expensive offering type, but were not for that reason substitutes for other objects.

Other scholars have found non-solar interpretations of the symbolism of the wheel, and used this as the basis for different interpretations. In 1817, in a discussion of the bronze statuette from Villeneuve le Châtelet, Grivaud saw the wheel as a symbol of travel, and argued that wheel models were dedications made by the sick, upon their metaphorical return from illness.[112] In this respect it will be recalled that the wheels from the Loire were first interpreted as the dedications of travellers crossing the river, and were also primarily symbols of travel and movement. Webster, undoubtedly thinking of the wheel's place in the iconography of the Roman goddess Fortuna, saw the models as symbols of

110 Veillon 1987; Chenet 1919.

111 Brunaux 1986: 94-95; Fauduet 1992a: 119.

112 Grivaud 1817: 33 and 36.

change, and argued that they were the dedications of the unlucky, who needed a reversal of their fortunes.[113] These interpretations ignore the Celtic roots of the wheel symbol entirely, as well as its clear connection to Jupiter on inscriptions.

2.9. Summary and Conclusions on Model Wheels

Before concluding, it is important to recall that the topic of wheel models has only been examined very superficially. A better survey of wheels from well understood contexts would doubtless provide better distinctions between wheels used as amulets and those used as votive offerings, a more discrete chronology and fuller consideration of distribution patterns, and an explanation of the relationship between rings and miniature wheels.

For the moment, we may conclude that the wheel models of the late Iron Age and Early Roman periods could serve at least two basic functions: as dress accessories (*i.e.* amulets) and as a special form votive offering. In most cases, there does not seem to be anything about the form of the wheels to allow their function to be deduced on an individual basis, and even very small specimens could probably have been worn. Both as amulets and votives, however, the wheel models are symbols of the Jupiter wheel god, a Romanised Celtic divinity, whose main attribute was the wheel.

The large scale deposits of miniature wheels on sanctuary sites are unequivocal evidence that many of these models were produced specifically for use as votive offerings. Their deposition in large numbers, perhaps some hundreds at a time in the case of the lead wheels, was a feature of Iron Age votive activity, while the dedication of individual wheel models seems to be more common in the Roman period. This change in form may mark a change from a communal to an individual act of worship.

The act of dedicating a wheel model must have been similar to that of offering a clay statuette or sculpted representation of a deity, but the wheels are reproductions of only one divine attribute. In this sense, they are similar to the metal *caducei* that seem to have been dedicated without accompanying statuettes of Mercury at Uley.[114] Similarly, in the Romano-Celtic sanctuary at Châteaubleau, the goddess Epona received bronze plaques representing her main attribute – the horse.[115] Votive offerings of this sort could have been dedicated for any number of reasons, ranging from casual piety to a very specific request. Their size was probably relatively unimportant as far as their function was concerned, and the model wheels are in no way miniaturised substitutes for real wheels. The form of such symbolic only allows us to identify the deity being addressed, and, in the case of miniature wheels, their recipient was clearly the Romano-Celtic Jupiter/ wheel-god.

113 Webster 1986: 130 and 1986b: 61.

114 Henig 1993a: 103.

115 Bontrond 1998.

3. MINIATURE ARMS AND ARMOUR

3.1. The Dedication of Arms: Iron Age and Roman Traditions

As observed in the introduction (**1.3**), the ritual deposition of war booty in the form of arms, armour, and other military equipment is one of the most prominent features of votive activity in Iron Age north-west Europe. The repertoire of metalwork found in Iron Age votive deposits includes swords, scabbards, spearheads, arrowheads, shield bosses, helmets, fragments of chain mail armour, horse tackle, pieces of chariots, and, at Tintignac, bronze war trumpets (*carnyxes*). These objects were often intentionally bent and twisted or otherwise mutilated prior to their final deposition. The dedication of weapons is contemporary to rites of large scale animal and human sacrifice, as well as the deposition of valuable precious metal items. Like precious metal offerings, arms and armour were high value goods, and their dedication also served to increase the prestige of the leading aristocracy of Iron Age society, and to reinforce social structure through a collective ritual act.[1]

Most miniature representations of arms and armour from the study area are dated to the very end of the Iron Age or the early Roman period, when the tradition of high value offerings was beginning to dwindle. The practice of dedicating of real weapons seems to have ceased very early on in the Roman period, and the dedication of model weapons is traditionally seen as a sort of substitutional rite that briefly replaced it. As such, the models can be seen as part of a transitional phase between Iron Age and Roman religion. Quite apart from the move away from elite and communal offering types, scholars have also pointed to the end of inter-tribal warfare under the *pax romana*, and the enforcement of Roman laws prohibiting civilians from owning weapons as reasons for the dedication of miniature weapons.[2]

Alternatively, model weapons have also been interpreted as a special category of object that was removed from the mundane world of functionality through their smallness and subsequently placed in the realm of the divine.[3] In this respect it should probably be noted that a few rare examples of miniaturised weapons are known that pre-date the late Iron Age or Roman periods. The late Bronze Age artefacts from the underground cave deposit at Trou de Han (Namur, Belgium) include a miniature spearhead, three miniature swords, a miniature chape, and three objects that might be miniature shields. In Britain, it has been suggested that some of the metal objects from the roughly contemporary votive deposit at

1 Roymans 1990: 84.

2 On the change in social structure see Webster 1986a: 120-123 and 1986b: 222; Bradley 1990: 185, and 188-189. On laws restricing arms specifically see Woodward 1992: 67-69; Henig 1993b: 131, who specifically cites the *lex iulia de vi publica.*

3 Green 1987: 239-241.

the Flag Fen Power station near Peterborough are also miniatures.[4] It is unlikely, however that these relatively rare finds influenced later traditions of dedicating miniaturised war gear.

These interpretations of weapon models as substitutes for an abandoned Celtic rite, or as special votive objects, will be addressed again after examining individual models and find complexes.

There is surprisingly little evidence, or only very ambiguous evidence, for the dedication of weapons in the Roman period. For instance, it has been suggested that the numerous early first century A.D. Roman helmets found in the Danube and Rhine represent the votive offerings of legionaries rather than chance losses. But even if this is true, who dedicated the helmets, the Romans or their German foes? Similarly, an inscribed bronze plaque from Tongres records the dedication of a shield and a spear to the goddess Vihansa by a centurion.[5] But was this the personal equipment of the centurion, or that of a defeated opponent? On the other hand, numerous finds of Roman weapons from the sanctuary of Mars Leucetius near Mainz do seem to represent the dedications of Roman soldiers. The iron washer of a hand held crossbow was identified amongst the finds from the sacred spring at Bath, and the dedication of larger catapults in other sanctuaries is also known.[6] A Roman soldier's equipment was purchased by him upon enrolment, and its cost was deducted from his pay. Multiple names inscribed on pieces of Roman armour show that military equipment often changed hands, and could perhaps be sold upon a soldier's retirement. While troops on active duty would have to purchase replacements for dedicated weapons, veterans might find such an offering an appropriate way to mark the end of their military service. In spite of the paucity of evidence, it is probably safe to assume that Roman soldiers did sometimes offer their personal equipment. Given the high cost of this equipment, it is legitimate to ask if such offerings ever took a more economical miniature or model form.

To evaluate the significance this large and diverse body of material, a multi-faceted approach is necessary. The earlier and larger find groups, most of which have good archaeological contexts, are described first. The later sections of this chapter are dedicated to individual finds, and particular types of models. Finds with fixed contexts are usually discussed first, though surface finds, or objects with less secure proveniences. A table summarizing each of the major find complexes and artefact categories is provided in the conclusions (**table 5.5**).

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4 For miniature objects at both sites see Warmenbol 2001: 612-614.

5 On the helmet dedications see Bishop and Coulston 1993: 37-38; Tongres: *CIL* 13.3592. Another inscription from Moesia Inferior (CIL 3.14333) probably datable to the period of the first tetrarchy (A.D. 296-305) mentions a silvered *spata* and *scutum*, but it is not clear to me whether these are real military equipment or parts of a statuette.

6 On the Mainz sanctuary of Mars see Klein 1999 and on the washer from Bath: Baatz 1988: 8-9 no. 6 pl. 5.

3.2 The Salisbury Hoard Shields

Both the dating and context of the Salisbury Hoard are problematic. The entire hoard contained at least 463 pre-historic metal artefacts, which could be dated on the basis of their typology to various points between 2,400 and 200 B.C., if not much later. This enormous date range in a single assemblage is unprecedented. The hoard was found by metal detectorists in 1984 near Salisbury in Wiltshire, England. The finders, who had been detecting without the landowner's permission, sold the hoard piecemeal over a number of years. Thanks to the hard work of Ian Stead of the British Museum, the hoard's findspot and almost all of its contents have since been recovered, and the metal detectorists successfully prosecuted. Having identified the findspot, Stead even undertook limited excavations to provide more information about the context of the hoard. Since 1998, the majority of the artefacts from the hoard have stored in the British Museum. The story of the hoard's recovery, a process of almost ten years, is a genuine archaeological thriller.[7]

We now know that the Salisbury hoard was originally found buried in a small pit, 65 x 35 cm and 30 cm deep; a surprisingly small hole in which the 463 artefacts must have been very closely packed. This pit was surrounded by numerous larger circular pits that had been cut into the chalk bedrock, and probably correspond to the underground granaries of Iron Age houses. A resistivity survey revealed the corner of a ditch nearby, which probably belongs to some other feature of an Iron Age settlement. Thus the hoard was probably buried in the middle of a settlement, though whether that settlement was still occupied at the time of its deposition is entirely unclear. The pit containing the hoard actually intersected the filling of one of the larger granary pits, but this only shows that one of the granaries had been filled at the time of its deposition, and the others may still have been in use. As of yet, the excavations have not been able to provide a date either for the hoard, or the rest of the site.[8]

The contents of the hoard are quite remarkable in that they can be dated for typological reasons over a period of at least 2,200 years. The earliest artefacts are Bronze Age axe heads, including four flat axes, six flanged axes, and nine palstaves. Flat axes appear as early as 2,400 B.C., while flanged axes and palstaves were used until about 1,100 B.C., when they were replaced by the socketed axe. The Salisbury hoard contains 173 socketed axes, though the majority of them are not functional tools but tinned models, which were too brittle to have been used for chopping. The presence of casting lines on the rims of the model socketed axes confirms that they were never fully finished or ever intended for a utilitarian

7 A set of photos of the entire hoard, originally commissioned by the finders, has allowed many of the lost pieces to be recovered. Stead's 1998 book is mostly an exciting description of how the Salisbury hoard was recovered, rather than a true academic study of its contents. At the time of Stead's 1991 article on the miniature shields, far less was known about their origin, or the nature of the hoard of which they were a part.

8 Stead 1998: 57-71.

purpose. Tinned socketed axes of this type are common finds in Britain, and are usually dated to the end of the Bronze Age. They are contemporary to the very similar and also non-functional Amorican axe heads of northern France. The purpose of these objects remains unclear, though it has been suggested that they served a purely ritual function, or were used as a form of primitive currency.[9] Other Bronze Age artefacts in the hoard include spearheads, daggers, knives, chisels, gouges and razors and pins. A full scientific publication of these finds is still pending, but of specific interest to this study are the 24 miniature bronze shields, 46 miniature cauldrons, two miniature socketed axes, and a possible miniature iron currency-bar that were included in the hoard.

The two miniature socketed axes, 46 and 27 mm long, may provide an additional clue to the dating of the hoard.[10] Though sometimes placed in the late Bronze Age, alongside the tinned socketed axe models, a recent survey suggests that the miniature British socketed axes were actually produced at the very end of the Iron Age, and perhaps even after the Roman conquest.[11] Since it is unlikely that these miniatures represent weapons, the socketed axes from the Salisbury hoard are discussed with similar pieces in the chapter on model axes (**4.3**).

There is no published illustration of the possible miniature currency bar from the Salisbury Hoard. Life-sized iron currency bars take a variety of shapes, and are thought to have been a simple means of transporting raw iron. They are often found in ritual deposits, including a very large group from excavations of Harlow Temple in Essex. Other deposits of currency bars seem to have been intentionally placed in liminal sacred contexts, such as tribal boundaries or rivers.[12] In their most common form, currency bars are roughly sword shaped, and it is just possible that the miniature currency bar of the Salisbury hoard is really a miniature sword. Miniature iron swords from Blicquy and Mouzon (**fig. 3.3, fig. 3.6, nos. 1-4**), are often very crude representations, not unlike the roughly sword shaped currency bars.

The 46 model cauldrons from the Salisbury Hoard are almost without parallel. They present two basic forms, both of which are unknown amongst Bronze Age and British Iron Age cauldrons. The nearest documented life-sized cauldrons are found amongst metal imports found in Eastern Germany and Scandinavia,

9 Stead 1998: 113-114; Warmenbol 2001: 617; Briard 1965: 262-267; Rivallain 2001.

10 The first miniature axe was one of a group of pieces, including 22 miniature shields, that were purchased by Lord McAlpine of West Green. The miniature axe featured in an exhibition of his collection in the Ashmolean (MacGregor 1987: 104, no. 11.29; Robinson 1995: 62, no. 5). The second miniature axe was purchased by the Devizes Museum (Inv. no.1988.121.83; Robinson 1995: 64, no. 16).

11 Robinson 1995: 60.

12 On currency bars in general see Hingley 1990 and 2005. On currency bars at Harlow see Bartlett 1988: 164 and 168. This short note seems to be the only record of the 1985 excavations in which the currency bars were found).

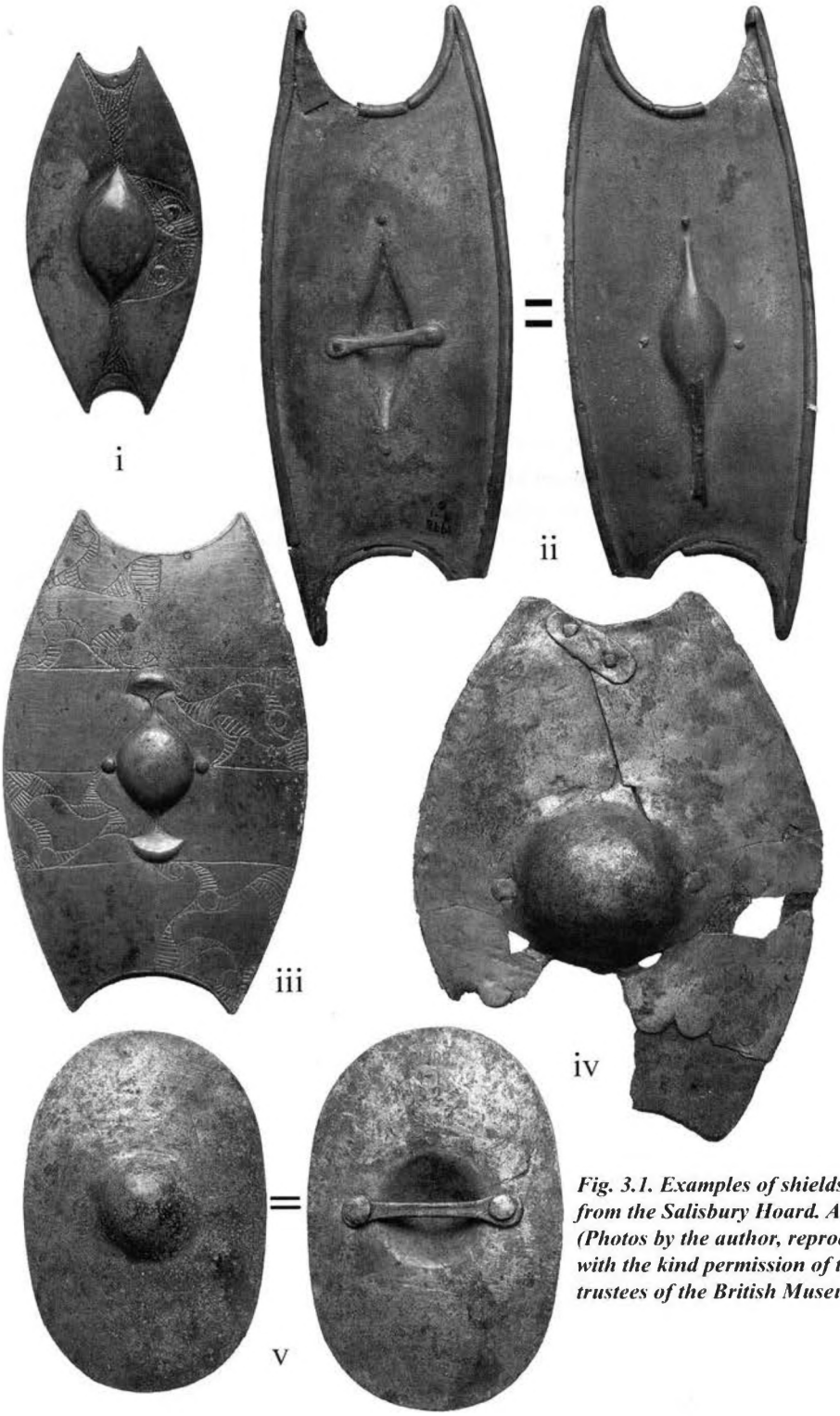

Fig. 3.1. Examples of shields from the Salisbury Hoard. At 1:1. (Photos by the author, reproduced with the kind permission of the trustees of the British Museum).

and can be dated to the late La Tène period.[13] The miniature cauldrons of the Salisbury hoard and their relatives will be discussed in detail later (**6.3**).

Some 24 miniature shields from the Salisbury hoard were purchased or recovered by the British Museum.[14] All are bronze, and range in size from 44 x 22 mm to 103 x 41mm.[15] Apart from two oval specimens, all of the miniature shields all have the same hide-shaped form: roughly oval with crescent-shaped indentations at the top and bottom. Most have a spindle-shaped boss behind which a horizontal handle has been riveted. In one instance the wings of the shield boss are also depicted (**fig. 3.1.iii**), and on four examples (*e.g.* **fig. 3.1.ii**) the metal *spina* is denoted by a raised ridge.[16] The thickened edges of some of the Salisbury miniatures (*e.g.* **fig. 3.1.ii**) represent the metal bindings that ran around the edges of real Iron Age hide shaped shields. In fact, the identification of the life sized iron shield bindings found in burials was enabled by the Salisbury miniatures.[17] The fronts of five of the miniatures (*e.g.* **fig. 3.1.i** and **iii**) are incised with elaborate Celtic patterns, which doubtless correspond to painted, raised and incised decoration that was present on real Iron Age shield covers. Compared to the other miniature shields described in this chapter, the Salisbury examples are by far the most sophisticated and finely made. None of them show signs of ritual mutilation, and a crack in the top of one shield (**fig. 3.1.iv**) was even been repaired in antiquity by adding a simple riveted patch of bronze.[18]

Life-sized edge bindings from true hide-shaped shields are known from burials dated from the beginning of the second to the end of the first centuries B.C. Thus Stead has proposed 200 B.C. as the earliest possible date for the model shields, but readily admitted that a later dating was possible.[19] Naturally, the date of a model's prototype need not correspond to the date of the model itself. A better clue to dating of the Salisbury miniature shields may eventually be provided by considering other factors such as the form of the bosses, the presence of the *spina*, and the incised Celtic patterns. Whatever their date, however, it is very clear that the Salisbury miniature shields do not copy Roman shields. If we take the latest possible date of the hoard to be that of the miniature axe-head, then the model shields can be dated between 200 B.C. and A.D. 50 (see **4.3**). This would agree with the cauldron models, which can best be compared to late La Tène models from mainland Europe (see **6.3**). If the Salisbury shields are to be considered as

13 Eggers 1951: 151 (types 4-6, late La Tène to A.D. 50) and 157 (types 73-4, late La Tène).

14 Most of the shields (22) were purchased by the British Museum from an antiquities dealer in in 1989 (Stead 1991: 10), though the hoard actually contained at least 24 speciments (Stead 1998: 108). One of the additional two was originally purchased by the Devizes Museum. The shields illustrated in **fig. 3.1** here correspond to Stead's 1991 catalogue as follows: nos. 20, 6,1, 3, 22.

15 The British Museum carried out XRF analysis on the 22 purchased shields, finding that they were all a mixture of roughly 83-90% copper and 10-17% tin. See Stead 1991: 28-29.

16 Stead 1991: no. 1 has wings, nos. 6-9 include representations of the *spina*.

17 Stead 1991: 20-25.

18 Stead 1991: no. 20.

19 Stead 1998: 114 and 1991: 25.

similar to other models discussed in this chapter, then a dating between 50 B.C. and A.D. 50 seems quite likely.

As a whole, the Salisbury hoard and its contents present numerous challenges. The mixture of Bronze and Iron Age antiquities is not the result of modern contamination, as it has been proven that they were all found neatly packed together in a single small pit. For the same reason, we are not dealing with a votive assemblage that was formed by accumulation over a long period of time, but a single ritual deposit. The most likely explanation is that the Bronze Age artefacts were found together in the late Iron Age or Early Roman period, and were then re-buried with the more contemporary miniature objects and other later objects. The re-use of Stone and Bronze Age axe heads in Iron Age and Roman sanctuaries will be discussed in a later chapter (**4.12.2**), and the deposition of antiquities in the Roman period seems to be quite common. The repair marks indicate the importance of the models. They had not been ritually mutilated; so how did this damage occur? Were they on display for a long period of time and somehow accidentally damaged? One possibility is that the Salisbury hoard represents a sort of Iron Age *favissa* – a deposit of ritual rubbish from a sanctuary. This would partially explain the diversity of artefacts in the assemblage, as the cleaning out of a sanctuary site might result in the grouping of both antiquities and relatively recent offerings together.

Stead suggested that the miniature shields and cauldrons were meant as symbols of the two most important aspects of primitive life with which the gods were concerned: warfare and the supply of food.[20] It is possible that the models are substitutes for offerings of the things they represent, but if so, this cannot have been due to the expense of real shields and cauldrons alone, as the metal value of the entire Salisbury hoard must have been considerable. Anyone who could afford to have dedicated the entire assemblage could also have managed to dedicate real cauldrons and shields. It seems that the model objects in the Salisbury Hoard are an example of ritual models being used in preference to life-sized objects. There was something about their size which made them appealing to the gods or effectively put them outside the functional world of man. On the other hand they may simply have been manufactured to save space or to accompany the other small sized objects of which the hoard was composed. It seems fairly clear, however, that like large caches of Iron Age weapons, the Salisbury hoard is an example of expensive communal or elite religious expression. A full scientific study of the hoard will be an immense undertaking, but hopefully one that will provide answers to these questions.

20 Stead 1998: 117-118.

3.3. The Sanctuary in the Bois du Flavier, near Mouzon

3.3.1. Description of the Site

Discovered in 1966 by a boy picking mushrooms, the Romano-Celtic sanctuary in the forest called the *Bois du Flavier*, near Mouzon in the French Ardennes, has yielded more model weapons than any other site in the Romano-Celtic world.[21] The sanctuary was situated on the ridge of a hill that formed tribal boundary between the *Remi* and the *Treveri*. Today, the same ridge forms the border between the modern *departments* of Les Ardennes and La Meuse. Both the high elevation and liminal setting of the site are common features of Romano-Celtic sanctuaries.[22]

The first excavations at *Bois du Flavier* began immediately after its discovery in 1966, and the large quantities of pottery unearthed led to the erroneous identification of the site as a pottery workshop. These initial explorations produced two miniature shields and a sword, which were identified as scrapers and a grip respectively.[23] Further campaigns undertaken in 1967 and throughout the 1970's allowed the site to be identified as a Romano-Celtic sanctuary.[24] Beyond a few summaries, and two short articles on the votive offerings from Mouzon, none of these excavations were ever properly published.[25] Two fairly good summaries of past excavations were prepared in 1984, but only appeared in very obscure local journals.[26] The post 1984 excavations, conducted by G. Popinleau, do not seem to have been published. The only evidence that such excavations took place at all is provided by a set of informative panels located at the site itself. These panels include a ground plan which covers a substantially larger area than earlier published versions, and must be considered the most up to date source of information on the sanctuary. They were probably erected at the same time as a protective roof and walkway that were probably constructed as

21 On the discovery see Congar 1967: 35; Lefevre 1986: 93. The main publications on Mouzon are Congar 1967 and 1970, Tisserand 1980 and 1981, and Lefevre 1986 (essentially a re-working of Lefevre and Poplineau 1985). The excavations were also briefly reported in *Gallia* 37.408-410 (1979, Frézouls) with a plan; 41.358 (1983, Frézouls) also plans in fig. 6; 29.281-2 (1971, Frézouls); 33.389-91 (1975, Frézouls). Very brief descriptions of the site have also been given by Caumont 1991 and 1994. The best account, however, is to be found on the educational signs at the site of Mouzon itself.

22 Lefevre 1986: 93-96 (on the ridge and boundary); Fauduet 1993: 25-28 (on liminal sanctuaries).

23 Congar 1967: 39 and 41.

24 For summaries of these campaigns up to 1980 see Lefevre 1986: 96.

25 See note 24 above for a full bibliography. Tisserand 1980 and 1981 are the most frequently cited articles, though the plan of the site in these articles are partly erroneous, and the model weapons are incorrectly described as being found in all stratigraphic levels.

26 Lefevre and Popinleau 1985; Lefevre 1986. These publications followed presentations made at a local 'history and archaeology day' held in Mouzon. The two authors wanted to generate interest in protecting the site from vandals. Sadly, I am not aware of any major library, either British, French or German, that holds the periodicals in which these two papers appeared. I am indebted to Mr. Paul Motte, president of Les Amis de Vieux Mouzon, for providing me with photocopies.

part of the post 1984 campaign. Some of the material from the site can be found in the Musée de l'Ardenne in Charleville-Mézieres, though most of the miniature weapons are usually to be found in the collection of Les Amis du Vieux Mouzon in the village of Mouzon itself.[27] Given the paucity of information available, and the importance of the finds from this sanctuary, it seems prudent to provide a somewhat extended description of the site here.

The Gallo-Roman settlement of *Mosomagus* (modern Mouzon), lies three kilometres to the north-west of the sanctuary and 100 m in elevation below it, and was an important trading centre in both the Iron Age and the Roman period. The Meuse could be traversed easily at this point thanks to a large island in the river, and the Roman highway connecting Reims and Trier passed directly through the settlement. It is generally assumed that the ancient settlement was the principal *vicus* of its *pagus*.[28] As the Roman road continued out of *Mosomagus* towards Trier on the east bank of the Meuse, a secondary road broke away from it and led south towards Verdun. While this north-south road entered the hills rather than following the flat river valley, it cut off a large meander in the river, and may well have offered drier footing in some parts of the year. The modern auto route D964 roughly follows the same path. This secondary road passed directly in front of the sanctuary, about three kilometres south of the Reims-Trier highway.[29]

Activity at the sanctuary has been divided into five chronological phases, beginning in the middle of the first century B.C. and ending in the middle of the fourth century A.D.[30] In the first phase, the sanctuary consisted of two wooden constructions, denoted only by post holes.[31] The second phase saw the wooden buildings replaced by three half-timber *cellae* built on dry stone foundations around 30 B.C.[32] The two northern *cellae* (**fig. 3.2.1-2**) were simple rectangular structures, both measuring 8 x 6 m. The southernmost *cella* (**fig. 3.2.3**) measured 4 x 7 m, and was fronted by a short covered porch on the east side. All three buildings were surrounded by an elliptical path made of large flat stones, which was presumably used for ritual processions. Circular hearths were found in the middle of *cellae* 2 and 3. The corner of a badly preserved and only partially excavated fourth building sits just outside the north side of the elliptical pathway.

27 The sanctuary site of Mouzon is accessible to the public today, with the walls protected by a roof and walkway. Presumably this protective structure was also put up following the post 1984 excavations. I visited the site in November of 2005, and with the help of Paul Motte, cleaned and photographed the rather mouldy panels. Neither location has excavation notes from any of the campaigns.

28 Congar 1972: 5-6.

29 Congar 1971: 1.

30 According to the panels at the site. Other publications describe three phases, and Lefevre (1986) describes four phases.

31 Tisserand 1980: 61. Lefevre (1986: 97) saw the post holes as contemporary to the dry stone foundations of phase 2.

32 The date is also from the signs at the site and is presumably based on the coin finds.

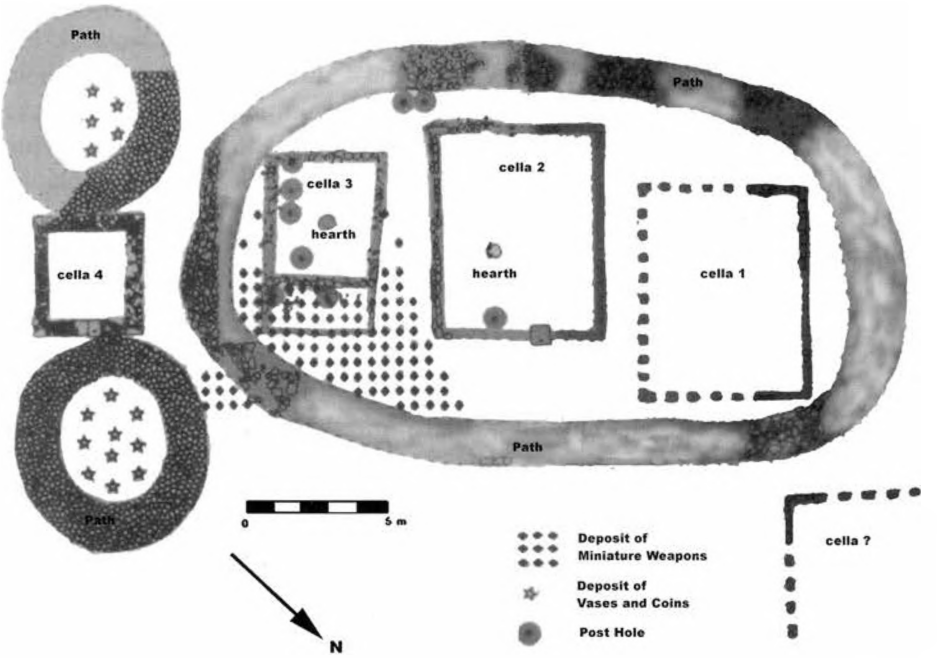

Fig. 3.2. Phase 3 of the sanctuary complex at Mouzon, 30 B.C. to end of the first century A.D. (Adapted by the author from a display panel at the site).

At the beginning of the first century A.D., the site's third phase began with the construction of a small square structure (*cella 4*, **fig. 3.2.4**) on the south-east side of the elliptical pathway.[33] The stone walls of this 4 x 4 m building are well made, with a door on the north-east side. The structure was flanked on the north-east and south-east sides by circular pathways. The fourth phase begins at the end of the first century A.D., when *cella* 3 was destroyed by a fire, and replaced with a stone building with a mortar floor.[34] The mortar floor of the new structure included a rectangular cavity directly above the central hearth of the earlier temple, and probably contained the base of a cult statue.[35] It was probably during this phase that a rectangular stone temenos wall (30 x 43 m) was constructed around the entire complex.[36]

33 Lefevre 1986: 97-100 (his phase 2).

34 Lefevre 1986: 97 records the traces of destruction by fire, but sees this as indicative of a period of destruction prior to the construction of *cella* 4. He interprets the stone temple with a mortar floor as additions contemporaneous to the major refurbishment of the early second century (described here as phase 5).

35 Congar (1971: 4) thought of an offering table, but given the size of the hole a statue base is the more likely explanation.

36 Both the extent of the *temenos* wall, and much of the area it enclosed, seems to have been only partially explored by the archaeologists as much of the area is still covered by forest today.

The fifth phase, which dates to the beginning of the second century A.D., marks the most significant change in the layout of the site. *Cellae* 1 and 2 were removed completely, and a large rectangular building, measuring 6 x 10 m, took their place. This new building included a central stone hearth and its western wall was continuous with the *temenos* wall. *Cella* 4 received a porch, or anti-chamber, and a portico of ionic style columns was added to a section of the *temenos* wall behind *cella* 3.[37] The ground around *cella* 3, now the central building of the complex, was covered by rough stone paving. On the north-east side of the building, this paving formed a path running from its entrance to the *temenos* wall. This paved floor is of great significance, as it sealed the finds of the earlier phases. Outside the *temenos* wall, the path connected to another paved road, which presumably connected with the main road.[38] The coin series continues into the middle of the fourth century A.D., and there is no evidence for a violent end to the sanctuary.

There is no complete catalogue of the finds from the sanctuary at Mouzon, only Lefevre's summary for each of the phases. Datable finds from the first two phases consisted of Iron Age and Republican coins (second half of the first century B.C.), three fibulae (La Tène III) and local pottery (Augustan).[39] The only life sized weapons found on the site, spearheads and arrowheads, also belong to this first period.[40] Some of the spearheads were found stuck in the dry-stone masonry of *cella* 3, which led Tisserand to suggest a violent end to phase two.[41] Bones from the pre-Roman levels are exclusively of sheep and pigs, but bovine remains appear in the Roman phase. None of the bones showed traces of burning.[42]

Finds from the third and fourth phases include coins dating from Augustus to Nero, large quantities of local ceramic and terra sigillata, and a few amphorae fragments. The identifiable ceramic forms could be dated from Augustus to Claudius.[43] The ceramic included numerous complete vessels, many of which were intentionally buried in groups inside the oval pathways on either side of

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It seems unlikely that earlier phases did not also include a wooden temenos wall or ditch as many Iron Age sanctuaries did.

37 The later development of the *temenos* wall also seems to be poorly understood, and it is unclear whether this section alone, or the entire wall was porticoed. Lefevre and Popinleau (1985: 20 and 22) and Lefevre (1986: 113) refer to this new structure as a Mediterranean, or classical style temple, but the addition of a few ionic columns in a surrounding portico hardly qualifies it as such. The *cella* itself still lacked columns and a platform.

38 This description of the site and its stratigraphy is more reliant on the signs at the site itself than on the incomplete publications, though the published dates and phases of these structures and those provided on the signs are not substantially different.

39 Lefevre (1986: 104) mentions only one type, a shallow dish, datable to the Augustan period (Gose 291/Haltern 1).

40 Lefevre 1986: 104 and 113. Caumont (1994: 112) records scraps of chainmail armour and circular shield bosses, but I can find no mention of these finds in the other publications.

41 Tisserand 1981: 379, fig. 8. It is unclear whether the eight examples he illustrates are the only life-size spearheads found.

42 Tisserand 1981: 379.

43 Lefevre (1986: 109) also records plates imitating terra sigillata (Gose 291/295/296).

cella 4 (see **fig. 3.2**). Most of these vessels were small carinated and hemispherical gallo-belgic goblets datable from the reign of Augustus to Vespasian. Many were found stacked inside one another.[44] Terra sigillata vessels were less common, but included a bowl stamped MARINVS, a potter of Graufesenque under Nero and Vespasian.[45] The most spectacular small finds of phase three were the miniature weapons. An assemblage of 160 coins was recovered on top of the mortar floor of *cella* 3, and must have been dedicated in phase four and five. They range in date from the middle of the third to middle of the fourth century A.D., and were particularly heavily concentrated around the entrance of the cella. Very little ceramic could be dated to the last two phases of the sanctuary.[46]

It is worth mentioning two unusual iron plated coins which were amongst a small selection of the finds shown to me at Mouzon. One was a Republican denarius, the other an *as* of Lyon. Their find context is unknown, though they were stored with a number of the ceramic goblets found near *cella* 4; plated coins of this type may well have been ritual models themselves and are discussed later on (**5.3**). The same collection at Mouzon also includes three wonderfully preserved plate *fibulae* decorated with coloured enamel. Two are simple squares, and one is in the form of two birds. A puzzling find recorded by Tisserand were some worked flints, though it was questionable whether these stones are prehistoric tools or were simply accidentally fractured. In either case, flint is not native to the local geology.[47]

3.3.2. The Miniature Weapons from Mouzon

The most important discovery at Mouzon was the enormous assemblage of model weapons. In the most recent publication, 309 model swords, 213 shields, 33 model spearheads, 5 model axes, and two possibly model arrowheads were counted – a total of 450 miniature weapons. All measure less than 15 cm in length, and with the exception of a single miniature shield in bronze, they are all made of iron.[48] The models were either forged directly into their finished shapes, or were

44 Lefevre 1986: 109 with illustrations on 108 and 110. Forms include biconical goblets (Hatt 8-14) ovoid goblets (Gose 340/41), bowls (Gose 333) and a few jugs (Gose 395 and 366). The imitative types are Gose 530, 531 and 535.

45 Congar (1967: 38 and 1970: 3) noted that the earliest excavations included fragments of terra sigilitta (Dragendorf 29)stamped MARINVS F, MASCVLUV and MAIVS.

46 Lefevre 1986: 111. Partial lists of the coin finds can be found in Tisserand (1981: 380) and Congar (1970: 9-11). A few terra sigillata sherds of types Gose 41 and 39 were found on top of the paved ground.

47 Tisserand 1981: 380 and 384, fig. 8. On the presence of stone tools in Romano-Celtic sanctuaries see **4.12.2.**

48 Tisserand 1980: 63; Lefevre 1986: 105. Mr. Motte, president of Les Amis de Vieux Mouzon, informs me that they actually possess some 850 specimens. If this is correct, it must be assumed that a significant number of additional models were recovered in the post 1984 excavations.

hammered and folded from thin plates of metal. As a whole, they are crude and often asymmetrical representations.[49]

Tisserand stated that the model weapons were present on all stratigraphic levels, but were most common in phase three.[50] Lefevre noted more accurately, however, that practically all of the models came from one of two large deposits from phase three, and that only a few chance finds seem to have contaminated the other higher levels. Moreover, the only weapons found below the two main deposits were life-sized spearheads rather than models. These deposits were uncovered in the excavations of 1970 and 1971, to the north-east of *cella* 3, and the north of *cella* 4 (see **fig. 3.2**). This gives the impression that many of the models were originally located in the porch of that *cella*, or had been thrown from the elliptical pathway. Lefevre also records that a number of the models, especially the shields, had been pierced with nails, as if to attach them to something, perhaps the walls or door frames of the *cellae*.[51] The best available plan of the site in phase three (**fig. 3.2**) seems to suggest that the models were also found on top of the circular pathway, or underneath it, though the exact chronological significance of this is unclear.

Some of the model weapons and other finds from Mouzon are now kept on display and in the depot of the Musée des Ardennes in Charleville-Méziéres. The remainder, some coins and the ceramic finds, are normally kept in the village of Mouzon in the offices of Les Amis de Vieux Mouzon. Only the miniatures in Charleville-Méziéres have been professionally cleaned. Sadly, all but 11 examples from the village collection were removed for study purposes by a French archaeologist some years ago. They have not been returned, and the archaeologist in question has not responded to enquiries. The following descriptions are based on the 48 models available for study in both public collections, as well as the commentaries of Congar and Tisserand.[52]

3.3.3. Model Swords

The model swords (**table 1, fig. 3.3**) ranged in length from 6 to 16 cm. The majority of them (289) were forged directly into shape, while the rest are composed of folded metal sheets.[53] Tisserand and Congar both used the shapes of the blades and the pommels as a basis for their classification systems, but neither provided numbers, measurements or photographs. The pommels are certainly

49 Two cursory attempts at classifying the models were made by Congar (1970) and Tisserand (1980).

50 Tisserand 1980: 63 and 1981: 379.

51 Lefevre 1986: 105. The sign at Mouzon also dates all of the models to phase three. Tisserand (1980: 62) also mentions groups, but does not give more details. None of the pierced models are present in the available collections.

52 In the depot of the Musée de l'Ardenne: 3 shields, 3 swords; on display there: 3 axes, 2 spearheads, 15 shields and 11 swords. In the collection of Les Amis du Vieux Mouzon: 6 shields, 5 swords.

53 *Gallia* 29.281 (1971, Frézouls).

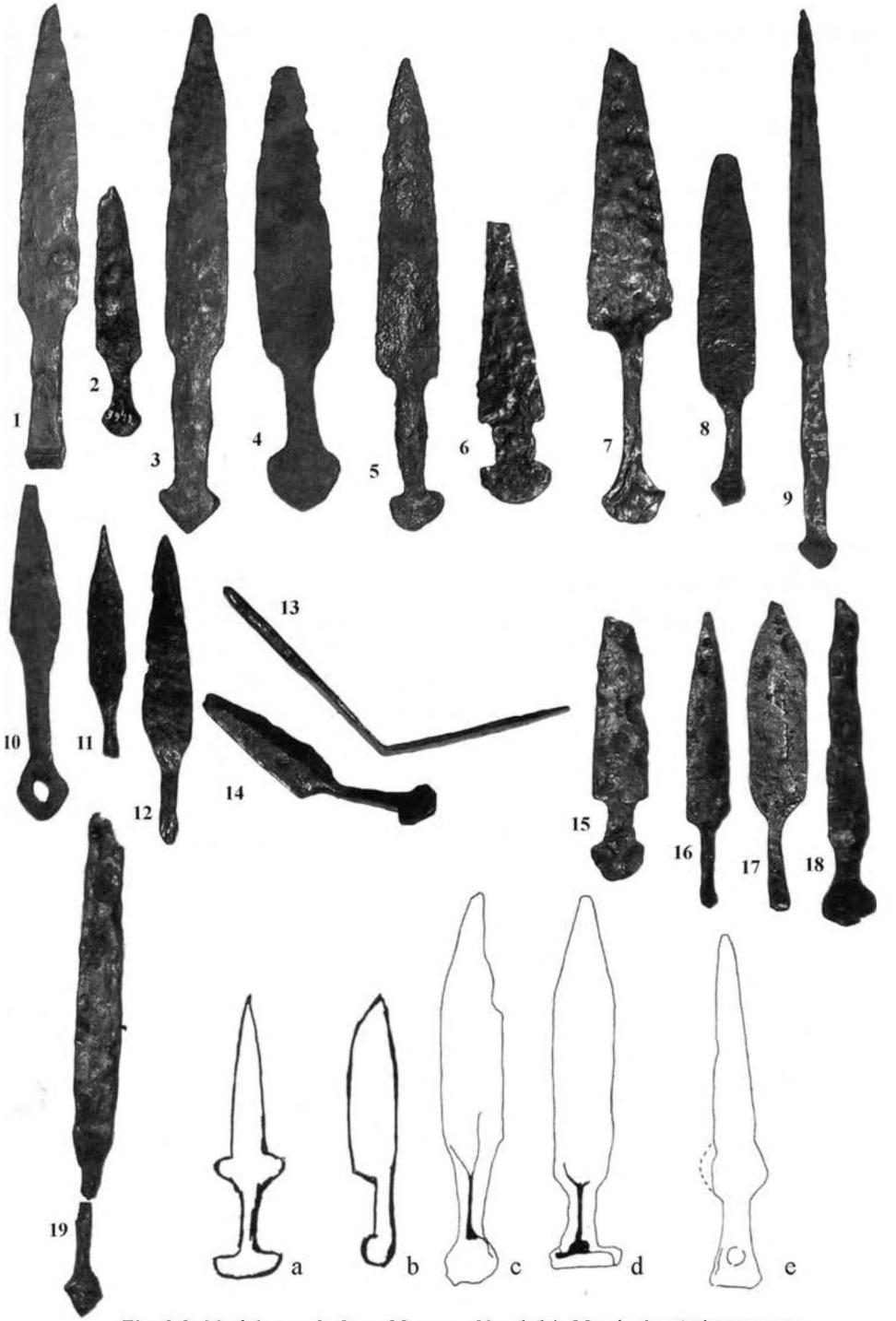

Fig. 3.3. Model swords from Mouzon. Nos 1-14: Musée des Ardennes; nos. 15-19: Les Amis du Vieux Mouzon. (The photos are all by the author; a-b: from Congar 1971: 6; c- e: Tisserand 1981: fig. 6 and 9) All 1:2, except a-b where the scale is unknown.

the most easily classifiable features of the swords. It is most frequently represented as flat circle, but other examples had a rough bulbous pommel. This latter type was considered by Tisserand to be the result of hammering one end of an iron nail flat, and using the nail-head as a representation of the pommel.[54] Amongst the swords available for examination, the grip sometimes had no pommel at all (*e.g.* **fig. 3.3.11** and **16**). Two pommels were roughly diamond shaped (**fig. 3.3.1** and **3**) and one (**fig. 3.3.10**) was in the form of a ring. The angle at which the tangs of these miniature swords merge into the blades, known as the 'shoulder' of a blade, also varies a good deal. We find both a steep and shallow curves (*e.g.* **fig. 3.3.3, 4** and **8**.) as well as angular linear connections (*e.g.* **fig. 3.3.10-12**). There is only a single instance of a true right angle that is typical of life-sized Roman weapons (**fig. 3.3.6**). It must have been difficult for the smith to cut away the metal at this point on the tiny models, and it is here that one often sees the unsymmetrical element in the models' manufacture (*e.g.* **fig. 3.3.4, 7** and **17**). As a rule, the miniature swords from Mouzon are crude schematic products, whose makers seem to have placed little value on the reproduction of consistent proportions. The length the grip is often too long when compared to the length of the blade. Two of the models available for inspection (**fig. 3.3.13-14**) had been intentionally bent in the middle.

Table 1: Model Swords from Mouzon.

In Charlville-Mezières Depot:

1	**Thrusting/slashing type with diamond shaped pommel. L. 13.4 cm.**
2	Thrusting type with bulbous pommel. L. 7.3 cm.
3	**Thrusting/slashing type with diamond shaped pommel. 15.3 cm.**

In Charlville-Mezières Display Cabinet:

4	**Thrusting type with a flat circular pommel; L. 12.9 cm.**
5	Thrusting/slashing type with flat circular pommel 13.9 cm.
6	**Thrusting type with a flat circular pommel, broken at tip; L. 8.3 cm.**
7	Thrusting type with long handle and a bulbous pommel; L. 13.8 cm.
8	**Slashing type with bulbous pommel; L. 10.2 cm.**
9	Slashing type with bulbous pommel; L. 16.3 cm.
10	**Thrusting sword with ring pommel; L. 9.6 cm.**
11	Thrusting/Slashing type with simple straight tang; L. 6.8 cm.
12	**Thrusting type with simple straight tang; L. 9.1 cm.**
13	Slashing type with simple straight tang, bent; L. 9.8 cm.
14	**Thrusting type with flat circular pommel, bent; L. 7.5 cm.**

Les Amis de Vieux Mouzon

15	**Thrusting type with bulbous pommel, broken at tip; L. 7.8 cm.**
16	Thrusting/Slashing type with simple straight tang; L. 8.6 cm.
17	**Slashing type, with simple straight tang; L. 9.1 cm.**
18	Slashing type with flat circular pommel; L. 9.5 cm.
19	**Slashing type with bulbous pommel, broken grip and tip missing; L. 14.7 cm.**

None of the rare instances observed by Tisserand of folding a sheet of metal to form the model could be found in the surviving collections (**fig. 3.3. a** and **b**).[55] Models where a guard was formed by extensions of the metal above the grip are also absent (**fig. 3.3.b**).[56] Finally, Tisserand reported instances where he

54 Tissserand 1980: 63, fig. 3.

55 Tisserand 1980: fig. 6. Tisserand recorded about 18 swords manufactured in this way.

56 *E.g.* Tisserand 1980: fig. 9.

thought the swords to have once had a wooden pommel, and where a simple blade with neither handle nor tang was represented. It is not clear how he identified the former, and the latter are surely nothing more than instances where the tang or grip has broken off. Neither type could be found in Mouzon or Charleville-Mezières.

The relationship between the model swords and real weapons is difficult to assess. The length of real swords is one key to their classification, but, as noted above, the models did not adhere to a consistent ratio of reduction. Moreover, it is unclear how accurately certain diagnostic elements of Roman and Celtic swords were copied. The traditional classification of blades as thrusting and slashing weapons, based on their overall profile, is rather subjective. The earliest Iron Age swords were short thrusting weapons, with the sides of the blade converging rapidly to form a point. In the Middle La Tène period, swords were used for both slashing and thrusting, with the edges running parallel and then converging slowly to form a point towards the tip. The latest La Tène swords, often referred to as *spatha*, were exclusively slashing weapons, with their edges running parallel right up to the very end of the blade, which was either rounded, or formed a short stubby point.[57] It could be argued that all of these types are present amongst the Mouzon models.

As a whole the Mouzon swords are most similar to Iron Age weapons, though the possibility that Roman weapons are also represented cannot be ruled out.[58] There are three types of Roman *gladii* that coincide with the date of the models. The long *gladius hispaniensis* which was used up until the time of Caesar, the so called Mainz type, into which it developed under Augustus, and the Pompeii type, which began to replace the Mainz type around the time of Nero.[59] For the most part, the shoulder of Roman sword blades formed a ninety degree angle, a trait that is found only once amongst the Mouzon models (**fig. 3.3.6**). A curved shoulder is more characteristic of earlier Iron Age weapons, and can also be found on many of the models (*e.g.* **fig. 3.3.4, 17** and **18**).[60] The incorporation of round pommels on the Mouzon models indicates that complete swords are being represented, and not just the bare blades. If so, it is fairly safe to assume that the models represent the bone or wooden grips and hand guards of actual swords as well. Whereas Roman swords tended to have rectangular guards, their Iron Age counterparts had smaller curved guards that closely followed the curved shoulder of the blade.[61] These guards were very small, and it is not surprising that there was

57 For the development of Iron Age swords see Brunaux and Lambot 1987: 85-90 and122-123.

58 Congar 1970: 7 no. 22. Congar reported a few rare Roman types amongst the models, but his illustration does not confrom to any Roman sword type. The tang of this sword curves into the blade, a distinctly non-Roman feature. Congar's no. 23 is perhaps a more likely candidate, though the join between blade and tang is not a right angle.

59 For descriptions of these types see Feugère 2002: 79-80, fig. 91; and 108-113.

60 *E.g.* Brunaux and Lambot 1987: 140, fig. 4.4 and 4.6 both from Acy-Romance.

61 Brunaux and Lambot 1987: 87. On Roman swords see Bishop and Coulston 1993: 69-74.

no attempt to reproduce them on most of the models. A few models illustrated by Tisserand and Congar have a hand guard composed of extended flanges (*e.g.* **fig. 3.3.b and e**), but, unlike Roman guards, they are curved.

Two unique forms of miniature sword from Mouzon also deserve comment. If it was not a simple mistake on the part of the smith, the cutlass observed by Congar (**fig. 3.3.a**) may represent the earliest type of Iron Age sword amongst the models.[62] It finds a life-sized parallel in some early la Tène weapons found at Acy-Romance, not far from Mouzon.[63] The model with a ring-shaped pommel (**fig. 3.3.10**) is also something of an enigma. It is not a Late Roman ring-pommel sword (*Ringknaufschwert)*, as one might be tempted to think. Like other Roman swords, the ring-pommel sword has a straight shoulder, whereas the shoulder of this model is curved.[64] It seems more likely that the hole was intended to allow the model to be suspended.

3.3.4 Model Shields

The model shields from Mouzon (**table 2, fig. 3.3.4-6**) varied in size from 30 x 60 mm to 70 x 170 mm.[65] They are a mere one or two mm thick, with raised circular bosses extending four or five millimetres outwards in the centre. Apart from a single bronze example (**fig. 3.4.10**), they are all made of iron. The shapes include rectangles, hexagons, ovals, and diamonds. Tisserand and Congar both recorded octagonal shaped models, but these cannot be found in the available collections.[66] Congar noted that three of the models had a grip soldered behind the boss on the back of the shield. One grip could be seen in the Mouzon collection (**fig. 3.6.19**), and consists of a simple strip of iron aligned horizontally behind the boss. Congar's illustrations show a grip on an oval shield that runs vertically along the long axis of the shield.[67] A single specimen in Mouzon seems to have been intentionally bent upwards in one corner, and this may correspond to the same ritual mutilation seen on the swords (**fig. 3.6.23**). I did not see any of the nails reported by Lefevre, or even pierced holes in the models.[68]

A final anomaly that should be noted is the presence of a very thin white line running the length of three shields in the Mouzon collection (**fig. 3.6.19-21**). The line runs vertically along the middle of the shield, and in the case of number 19 appears on both the front and back. The Mouzon examples have not been restored, and one wonders if similar markings were lost in the cleaning of the examples at Charleville-Méziéres. The nature and meaning of these lines, however, is entirely unclear. They are not join lines, as the shields are clearly composed of single pieces of iron. They might be the remains of decorative silver inlay. If so, it

62 Congar 1970: 7, no. 24.

63 Brunaux and Lambot 1989: 139, fig. 3.1-3.

64 Feugère 2002:122-125.

65 *Gallia* 29.281 (1971, Frézouls).

66 Tisserand 1980: 62; Congar 1970: 7, fig. 10.

67 Congar 1970: 7, fig. 15.

68 Lefevre 1986: 105.

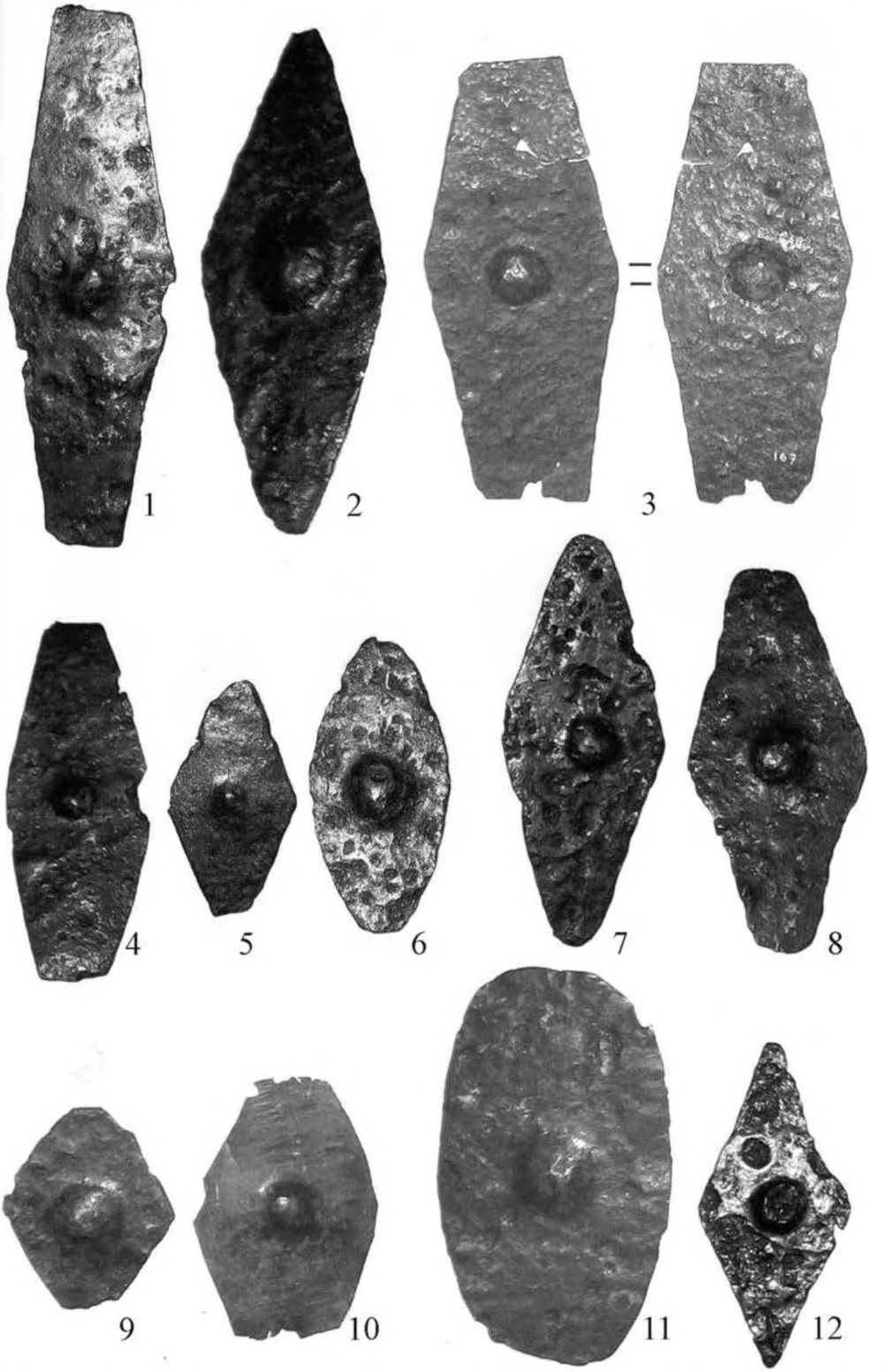

Fig. 3.4. Miniature Shields from Mouzon, nos. 1-13. All 1:2. (Photos by author, Musée des Ardennes.)

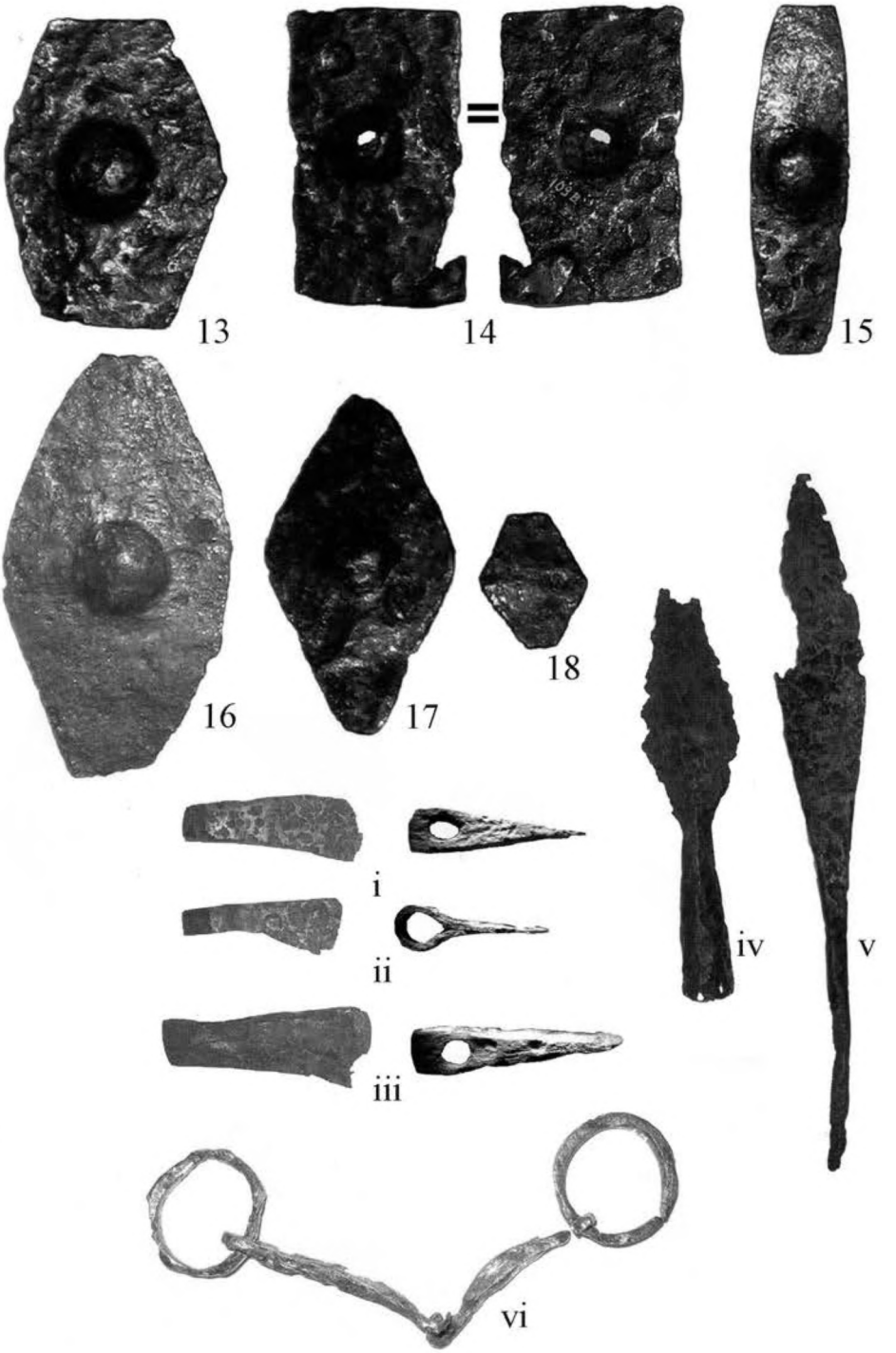

Fig. 3.5. (previous page). Miniature Weapons from Mouzon, nos. 14-25. Shields (nos. 14-18, Musée des Ardennes, nos. 15-25 Les Amis du Vieux Mouzon.); i-iii) miniature axe-heads; iv-v) model (?) spearheads; and vi) model (?) snaffle-bit. (Musée des Ardennes) All 1:2. All photos by the author.

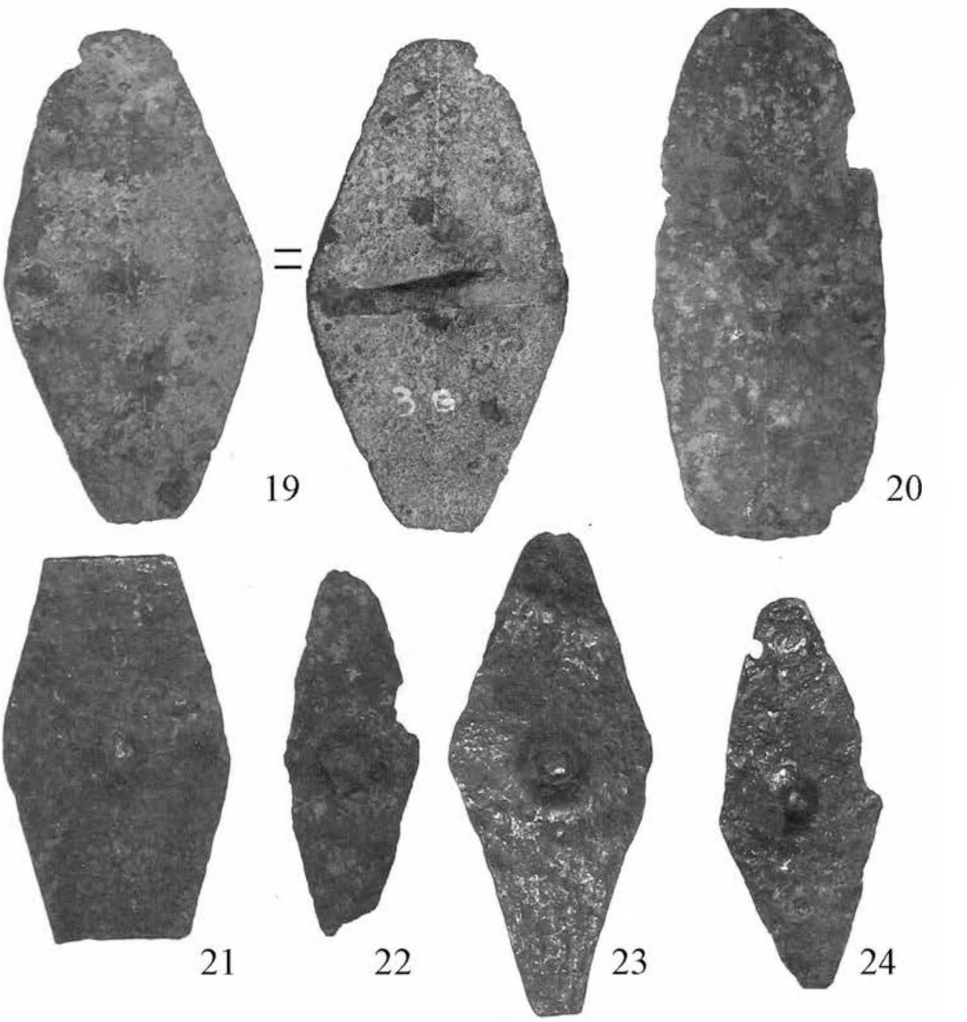

Fig 3.6. Mouzon shields in the collection of Les Amis du Vieux Mouzon. 1:2 (Author, Les Amis du Vieux Mouzon)

is possible that they represent the metal *spina* that ran the length of some Iron Age shields, or that the Mouzon shields once bore decorative patterns similar to those from the Salisbury Hoard. Neither explanation, however, provides for the presence of this line on the inside of one shield.

Tisserand considered the oval and rectangular shields to represent older and newer types of Roman *scuta*.[69] In fact, it most unlikely that any of the Mouzon models represent shields of the Roman army. Roman legionary shields were oval in the early Republican period, and became rectangular during the principate, but they were curved in both periods, whereas the rectangular Mouzon models are all

69 Tisserand 1980: 63.

flat.[70] Shields used by mounted and infantry auxiliary troops could be rectangular, hexagonal, oval, and oval with flat ends.[71] Only the diamond shaped shields are absent from the Roman arsenal. It is interesting to note that the hide shaped shield, which the Salisbury miniatures copy (see above), is not to be found amongst the Mouzon models. Nor do the models thicken at the edge, or in any way suggest the metal bindings that bordered both Roman and Celtic shields. Though countless metal shield bosses survive from Gallic sites, perhaps most notably from the sanctuary at Gournay-sur-Aronde, we do not know anything about the shape of the wooden shields to which they were attached. Perhaps the most important feature of the shields is their universally hemispherical bosses. Not one seems to represent the spindle or egg shaped types that are so common on British models (see below), much less tube-like winged types known from Gournay-sur-Aronde.[72] Contrary to popular belief, hemispherical bosses are not an exclusive trait of Roman shields. Life size shield bosses from late Iron Age Gaul are quite often hemispherical with lateral or vertical flanges.[73] Presumably the Mouzon models copy these types. The flanges must have been assumed, or were painted on.

Table 2. Model Shields from Mouzon

Locations:
C.-M. Dep.: Musée des Ardennes, Charleville-Mezières, Depot.
C.-M. Disp.: Musée des Ardennes, Charleville-Mezières, on display.
Mouzon: Collection of Les Amis de Vieux Mouzon, Mouzon.

1	**hexagonal (16.2x5.2cm) C.-M. Dep.**
2	diamond (15.4x5.5 cm) C.-M. Disp.
3	**hexagonal (13.7x5.8 cm) C.-M. Disp.**
4	hexagonal (10.7x4.5 cm) C.-M. Disp.
5	**diamond (7.1x3.8 cm) C.-M. Dep.**
6	oval (8.3x4.2cm) C.M. Dep.
7	**diamond (12.4x4.9 cm); C.-M. Disp.**
8	hexagonal (11.6x5.9 cm) C.-M. Disp.
9	**hexagonal (6.2x5.3 cm) C.-M. Disp.**
10	hexagonal in bronze (7.9x5.6cm) C.-M. Disp.
11	**oval (12.2x2.6 cm) C.-M. Disp.**
12	diamond (9.8x4.7 cm) C.-M. Disp.
13	**hexagonal (8.6x6.2 cm) C.-M. Disp.**
14	rectangle (8.4x5 cm) C.-M. Disp.
15	**rectangle with curved sides (9.7x2.8) C.-M. Disp.**
16	hexagonal with curved sides (12.2x6.4cm) C.-M. Disp.
17	**diamond (9.6x5.8cm) C.-M. Disp.**
18	hexagonal (3.9x3 cm) C.-M. Disp.
19	**hexagonal, with white line and grip (13.2x6.8cm) Mouzon**
20	oval with white line (14.4x6.2 cm) Mouzon
21	**hexagonal (10.4x6.8 cm) Mouzon**
22	oval (9.85x3.6 cm) Mouzon
23	**hexagonal, top bent upwards (13x5.9cm) Mouzon**
24	diamond (10.6x4.5 cm) Mouzon

3.3.5 Model Axes

Tisserand recorded five miniature axe heads from in the sanctuary at Mouzon (**table 3, fig. 3.5.i-iii**) of which three are now on display in the Musée de l'Ardenne.[74] All five models follow the same basic pattern. They have a circular hole at the back of the head for the attachment of a wooden haft, and all but one

70 Bishop and Coulston 1993: 58-59 and 81-82.
71 Bishop and Coulston 1993: 81-82.
72 See Brunaux and Lambot 1987: 182-184, figs. 46-48.
73 Brunaux and Lambot 1987: 130-131, fig. 14.
74 Tisserand 1980: 63.

Table 3. Miniature Axeheads from Mouzon.
1 L. 48 mm (fig. 5.i)
2 L. 45 mm (fig. 5.ii)
3 L. 48 mm (fig. 5.iii)
Illustrated by Tisserand 1980: fig. 16.
4 L. 50 mm
5 L. 40 mm

are wedge-shaped. The other (**fig. 3.5.iii**) is flat, and has been formed by folding a thin sheet of metal back on itself. The top profile of all the axes slopes gently upwards, and is mirrored by the bottom profile until the about the middle of the axe head. At this point, the bottom profile curves abruptly downwards. This form corresponds to one of the most common types of life-sized Roman axe heads.[75] Axes are not usually considered to have been part of the Celtic arsenal, and the inclusion of these miniature axe heads amongst the other model weapons is perplexing.[76] Being made of iron, the Mouzon axe models are much closer to the miniature weapons with which they were found than other miniature axes. This is an issue that will be revisited in detail in the chapter on model axes (**4.12.1**). Axes of this sort would have been unwieldy arms, and were probably only used by the poor or as weapons of last resort.

3.3.6. Model and Functional Spearheads and Arrowheads

Tisserand thought that at least nine of the larger socketed spearheads from pre-Augustan levels were functional weapons rather than models.[77] The largest example he illustrates was 22 cm long, with a raised central spine running along the length of blade. This feature is typical of iron age spearheads.[78] Another larger spearhead (L. 14.5 cm) was found lodged between two stones in the dry wall of the pre-Augustan temple, and was interpreted by Tisserand as evidence for a violent end to this phase of the sanctuary's existence.[79] Of course, it could also have been intentionally placed there as part of a ritual.

In the first study of the Mouzon models, Congar considered a number of objects to be functional javelin and arrowheads, and also illustrated the ferrule of a spear shaft.[80] These same objects were classified by Tisserand as model spears from Mouzon, and divided into two groups. The largest group, with 25 examples, consisted of leaf shaped spearheads, which terminated in a socket for a wooden haft (*e.g.* **fig. 3.5.iv**). He illustrated 11 specimens, most of which are between 8 and 10 cm in length.[81] Similar models have been found at several other sanctuary

75 Manning 1985: 14, type 2.

76 Brunaux and Lambot 1987: 96-97.

77 Tisserand 1981: 379 fig. 5. He gives no numbers but illustrates nine socketed spearheads. They measure 22, 19, 14.5, 11, 11, 10, 9.5, 8 and 6.5 cm in length. The confusion between model and real spearheads with these smaller examples is understandable. Tisserand's fig. 5.9 had already been illustrated and described by him as a model in his earlier article on the model weapons from Mouzon (Tisserand 1980: fig. 14).

78 Lambot and Brunaux 1987: 91-95.

79 Tisserand 1981: 379.

80 Congar 1970: 8, figs. 27-30.

81 Tisserand 1980: 63 figs. 14-15.

sites in both northern France and Britain, and are discussed in detail below. It is almost impossible to say whether larger specimens, such as those found at Mouzon, are from non-functional model spears or are simply crude projectile points from javelins or arrows.

Tisserand's second group, containing eight models, are complete spears which include a metal haft (**fig. 3.5.v**).[82] Their leaf shaped blades taper at the base into a long and thin rectangular piece of metal. The size of the blades in relation to their supposed hafts, however, is totally out of proportion; even given the crudity of the other models. In my opinion, these objects are actually model spearheads that may once have been mounted on wooden hafts by means of their straight tangs. Such a method of attachment is not normal either for functional spears or javelins, though arrowheads occasionally take this form.[83] These models are far too large for them to be considered arrowheads. Two triangular socketed arrowheads with double barbs were recorded at Mouzon. They are surely functional arrowheads, and have a quite quite different form from the models.[84]

3.3.7 The Snaffle Bit and Two-Pronged Instrument

Two more iron objects from Mouzon on display in the Musée de l'Ardenne have also been identified as miniatures. The first is a typical snaffle bit (**fig. 3.5.vi**) measuring 16 cm in total length, and the second is a two pronged fork about 14.5 cm long. This latter find is described in the museum as a miniature trident. Though a slightly different tool, a two-pronged hoe from the Walbrook, now in the British Museum, has teeth a mere 17 cm long.[85] A two pronged baling fork from Great Chesterford, Essex, which has a total length of 15.2 cm.[86] Thus the Mouzon 'trident' is more likely to have been a functional tool. The horse bit may seem small to modern eyes, but is probably not abnormally so. The straight 'bit' part is 11 cm long. This is not so far removed from two functional and otherwise similar snaffle bits from Hod Hill, which measure 12 and 15 cm.[87]

3.3.8 Conclusions on Mouzon

In spite of the paucity of reliable information about the architecture, stratigraphy, and finds, it is still possible to draw a few conclusions about the sanctuary at Mouzon. The presence of three *cellae* surrounded by a pathway in the site's earliest stages suggests a triad of three divinities. The obvious choice for *cella 3*, given the deposits of weaponry, is Mars. The elliptical pathway surrounding the three cella and the two circular paths on either side of the Augustan period *cella*

82 Tisserand 1980: 63, fig. 15 illustrates all eight specimens, of which only five are complete. They measure: 20, 15, 12, 10 and 7 cm in length.

83 Manning 1985: 177-178.

84 Tisserand 1980: 63, fig. 16.

85 Manning 1985: 47, no. F13.

86 Manning 1985: 60, no. F67.25.

87 Manning 1985: 66-67, nos. H10 and H12. The snaffle-bit from Mouzon is also described as a miniature by Caumont 1994: 112.

4 all point to Gallic rituals of perambulation.[88] The concentration of miniature weapons in the porch of *cella* 3, and around the pathway in front of it, seems to suggest that access to the area within the elliptical pathway was forbidden to the common worshipper. Access seems to have been restricted in the later phases 4 and 5 as well, where coin offerings were found most densely concentrated around the door and in the porch of the same structure. The deposits of ceramic vessels and coins in the centre of the paths flanking *cella* 4 also support this conclusion. In all three instances, the votive offerings had been placed as near as possible to the *cellae* in which the gods were housed.

As far as the model weapons and shields are concerned, some very important points should be noted. The models from the site date only to the early first century A.D., and not the entire Roman period, as was once previously thought. The sanctuary had a pre-Roman phase, in which at least some life-sized weapons were dedicated. The variation in the form of the models, particularly the shields, shows that they copy Iron Age rather than Roman prototypes. The nail holes reported in some of the shields suggests that at least some were placed on display. The fact that some of the miniature swords and shields had been ritually mutilated is further evidence of a continued Iron Age practice. Perhaps the most significant fact, however, is that the miniature weapons were found in large numbers, and in two large deposits. This suggests a single dedication, or a few dedications offered over a short period of time. Though the shapes of the shields show variation, the production techniques and materials used are relatively consistent. Had the models been dedicated by individuals over a long period of time, one would expect a more scattered distribution and less uniformity of appearance. Thus the model weaponry from Mouzon is best understood as reflecting the Iron Age tradition of large scale dedications. On the whole, the idea of substitution seems to fit the Mouzon models very well.

3.4. The Sanctuary at Blicquy, Hainaut, Belgium

Possible comparanda for the Mouzon swords and axes (**table 4**) have recently been found at the sanctuary site of Blicquy in Hainaut, Belgium. Unlike Mouzon or the Salisbury hoard, this site has been competently excavated (since 1997), and a final site report will soon follow the various detailed preliminary reports that have already appeared.[89] Blicquy is situated near in the southwest of Belgium,

88 Fauduet 1993: 135. The most spectacular evidence for the circulatory movement of worshippers within a sanctuary is provided by the paving at Puy Lautard (Creuse). See Marquaire 1994: 60-61.

89 I am very grateful to Nicolas Paridaens, of the Université Libre de Bruxelles, and Evelyne Gillet of the Cercle de Tourisme et de Recherches Archéologiques de Blicque-Aubechies (CTRA) for allowing me access to their unpublished material. A monographic publication of the site is in preparation. On the theatre see Gillet, Demarez, and Deroissart 1996/7 and on the other structures Gillet, Paridaens, and Demarez 2004: 45-46. The find numbers of the miniature swords and axehead are: 1: LHT/BL/VA 80-90.SA.surf.97; 2: LHT/BL/VA.88.SA.Dec.1.3.; 3: LHT/BL/VA 88.SA. Dec.1.4; 4: LHT/BL/VA 88.SA.Dec.1.5; 5: LHT/BL/VA.88.SA.Dec.1.6.

Table 4. Miniature Weapons from Blicquy	
1	Slashing type, with the tang almost as long as the blade. L. 120 mm, 20.23g.
2	A rectangular slashing type with rounded tip. Folded sheet technique. The tang is badly damaged, and the tip is folded backwards. L. 129 mm, 20.21 g.
3	Rectangular slashing type with short pointed tip. Folded sheet technique. Broken at the hilt. L: 114 mm, 14.78 g.
4	Miniature sword. Found on the La Tène surface with nos. 2 and 5. L. 74 mm. Non vidi.
5	Miniature axe head. L. 77 mm, 47.5g.

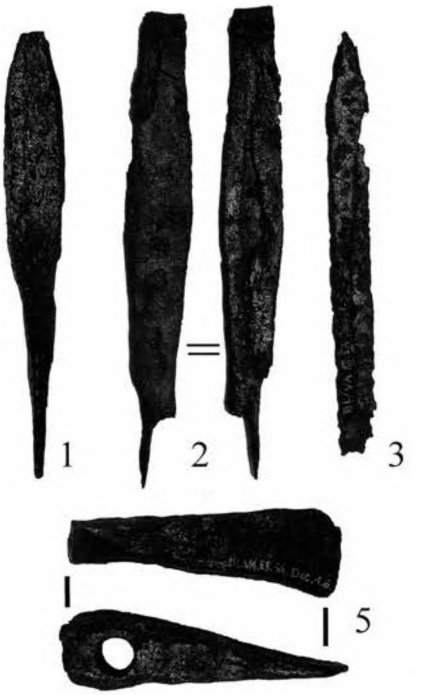

Fig. 3.7. Miniature Swords and Axehead from Blicquy. Iron, 1:2. (Photographs by the author, Université Libre Bruxelles).

in the province of Hainaut, (Communité Leuze-en-Hainaut), in the middle of the *civitas* of the Nervii.

Like Mouzon, datable and significant ritual activity at Blicquy begins around the time of the Roman conquest and the end of the second Iron Age. In its earliest phase, the temple consisted of a simple *cella* surrounded by a palisade and trench in which offerings were buried.[90] Finds from this phase include human bones, swords and their scabbards, spearheads, horse gear, the iron rim of a wheel, and the linch-pin of a chariot.[91] The first stone building appeared in the first half of the first century A.D., and at the same time military style votive offerings ceased. The temple underwent a major renovation in the course of the second century A.D., which saw the addition of a rectangular porticoed *temenos* wall that incorporated several buildings and a large hemicycle at the north-west end. The Roman period finds include numerous coins and pieces of jewellery, nine seal boxes, and an impressive collection of 46 figural bronzes, amongst which representations of Mars figure prominently. The Roman occupation of the site ended in the second half of the third century.[92]

Two of the miniature swords from Blicquy (**nos. 2** and **4**) were found together with a miniature axe head (**no. 5, fig. 3.7.5**) in the south-east end of the hemicycle. Another miniature sword was found near this group (**no. 3**) and yet another (**no.**

90 Gillet, Paridaens, Demarez 2006: 182-189. In this respect the Iron Age site is similar to the sanctuaries at Ribemont-sur-Ancre and Gournay-sur-Aronde.

91 Demarez and Leman-Delerive 2001; Gillet, Demarez and Henton 2001. The pin is of a British type, and is the first of its kind found in continental Europe.

92 Gillet, Paridaens and Demarez 2006: 189-199 and 208-215; Gillet and Demarez 2003; Paridaens 2003.

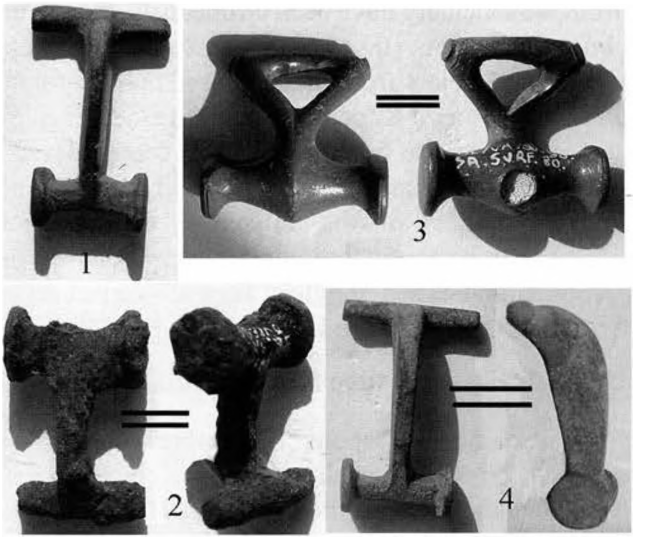

Fig. 3.8. Supposed Miniature Chariots from Blicquy. Bronze, 1:1 (Photo by J.M. Rogge).

1) was found in the south end of the hemicycle. Two of the swords (**nos. 1** and **3, fig. 3.7.1** and **3**) were made using a production technique recorded at Mouzon in which simple sheets of metal are folded to form a basic sword shape.[93] It is debatable whether the pointed ends of these models represent the sharp tips of swords or the tangs on which the grip was mounted. In one case (**no. 1, fig. 3.7.1**), the pointed end clearly seems to represent the tang, with the model showing the same lack of proportion between grip and blade as is sometimes seen at Mouzon (*e.g.* Mouzon **nos. 7, 9** and **14**). The flat ends of the other three could either represent the flat tip of a Celtic *spatha*, that was designed exlusively for slashing, or have been mounded in cyclindrical wooden grips that are now lost. The Blicquy models are certainly less well preserved than those from Mouzon. One wonders if the miniature currency bar from the Salisbury Hoard is not something similar to the Blicquy swords, or vice-versa.

The miniature iron axehead from Blicquy (**fig. 3.7.5**) is identical to those found at Mouzon.[94] It should perhaps be noted that several life-sized axe heads were also found at Blicquy, including three examples similar to the model, and a fragmentary neolithic polished axe head.[95]

93 All but one of the miniature swords from Blicquy were availabe for me to look at in Brussels. Though described by Tisserand (1980: 63) this technique cannot be found in any of the swords in the Mouzon collection or the Musée de les Ardennes.

94 They also correspond to Manning's (1985) type 3 axe.

95 The iron axeheads of the same type as the model have the find numbers LHT/BL/VA 96.TH. surf.13; LHT/BL/VA. 80-90.SA. surf.91 and LHT/BL/VA. 80-90.SA. surf.110. They are all around

In addition to the miniature swords and axeheads found at Blicquy, four bronze objects from the sanctuary have been erroneously, though understandably, identified as miniature chariots (**fig. 3.8**).[96] The same identification has been made for a similar bronze object from the supposed cult centre on the outskirts of a Roman *vicus* at Kruishouten-Kapellekouter in Flanders.[97] Additionally, three similar 'miniature chariots' were found by a metal detectorist at different sites in Hainaut (Hautrage, Blandain and Grandmetz), and are now on display in the museum Éspace Gallo-Romain in Ath.[98] In spite of their obvious similarity to chariots, these objects can be confidently identified as Iron Age or early Roman clothing fasteners sometimes called 'toggles.' They are very close to a well known well known type that is common in the U.K.[99]

3.5. Individual Finds of Miniature Swords and Shields

A number of individual model weapons comparable to those found at Salisbury and Mouzon have been found in Britain and on the continent. These include a fragmentary bronze shield, found on the surface at Hod Hill, (Dorset); an Iron Age hill-fort site (**fig. 3.9**).[100] The boss of this shield is spindle-shaped with the two vertical ends tapering into a distinct representation of the *spina*. This matches both the bosses of the life-sized Chertsey shield, and the Salisbury models.[101] A horizontal grip is riveted to the shield behind the boss of the shield. The edges at both ends are missing, and although Smith's illustration reconstructs an oval

15 cm. long. The neolithic axehead is inventory no. LHT/BL/VA. 03.SA. Dec.11.8. None of these finds has a stratigraphic context.

96 Paridaens 2003: 107. The find numbers of the supposed miniature chariots illustrated above (**fig. 3.7**), are: 1: LHT/BL/VA/98.SA./Surf.78; 2: LHT/BL/VA.98.SA.surf.79; 3: LHT/BL/VA 80-90.SA. surf.80; 4: LHT/BL/VA.98.SA.surf.81.

97 Vermeulen 1992: 136, 178-179, fig. 109.10; Rogge, Vermeulen and Moens 1995: 199, fig. 5.11. Other finds from this site include a remarkable collection of bronze statuettes and *instrumenta* which are not dissimilar to those found at Blicquy. Once again, the principal deity represented is Mars. A statuette base from Kruishouten-Kapellekouter is inscribed: DEO MARS CAMVULO V S L M. Vermeuelen 1992: 183, fig. 111 and 82; Rogge, Vermeulen and Moens 1995: 205-206, fig. 9.

98 Dufrasnes 1994 and Dufrasnes, *pers. comm.* October 2006. Mr. Dufrasne proposes that all three sites in Hainaut are Roman villas, but none have been properly excavated. A study of the finds from Blandain was published by Dufrasne (1993) in a local journal, and included a list of 350 coins found there. He interprets the model chariots as toys rather than votive offerings. I am grateful to Mr. Dufrasne for bringing his finds and the supposed chariot from Kruishouten-Kapellekouter to my attention.

99 See Wild 1970. The miniature chariots are most comparable to his types I and IX. Morphologically closer examples have since been recorded by the Portable Antiquities Scheme (PAS LEIC-E515F7; LEIC-69D617; DENO-7F4582; ESS-70CB96; SF9547).

100 Smith 1922: 98-99, fig. 4. The model was exhibted 'At the Ballots' on behalf of Mrs. Oakden Ward, the granddaughter of Henry Durden, whose collection was purchased by the British Museum in 1892. The current location of the model is unknown, but it does not appear to be in the British Museum.

101 Stead 1991: 1-9.

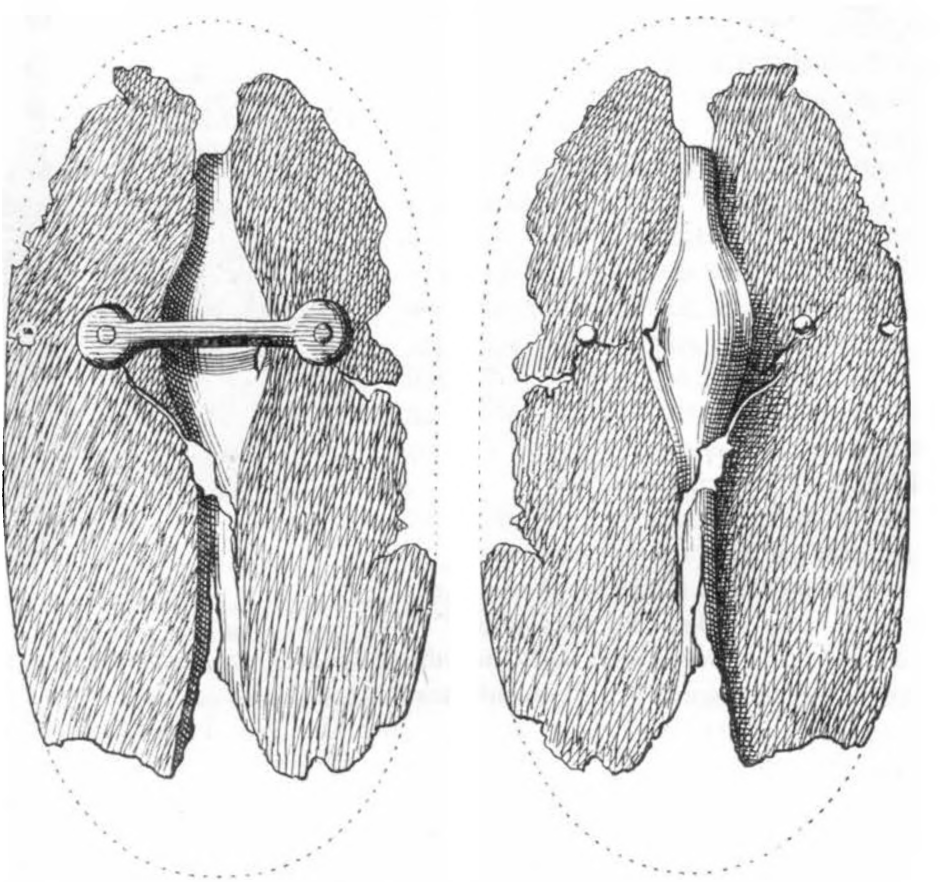

Fig. 3.9. Model Shield from Hod Hill. Bronze, 1:1. (After Smith 1922: fig. 4.).

form, the shield could just have easily have been hide-shaped like the Salisbury models. The total original length was probably not much more than 80 mm.

Excavations of the sanctuary site at Frilford (Berkshire) in 1937/8 produced a small oval shield and a sword in bronze (**fig. 3.10**).[102] The site included a square and a circular stone structure, both built in the Roman period on the top of Iron Age precursors. The Iron Age structure below the circular shrine consisted of a horse-shoe shaped ditch, which enclosed a series of post holes, a square pit, and a hearth. The sword and shield were found in the filling of this square pit, along with a fragment of an iron spearhead and early first century A.D. pottery. The ditch and pit were filled and the wooden shrine was replaced with a stone structure in the late first century A.D.

102 Bradford and Goodchild 1939: 13-14, pl. 5B. Harding 1974: 103-106; Bagnall-Smith 1995: 199, figs. 21-22.

The grip of the sword is represented by a series of five knobs that terminate in a spherical pommel. There is no guard, and the shoulders of the blade are curved. Though broken towards the end, the blade seems to narrow gradually towards the point, like a *spatha*. The surviving fragment is 76 mm long. Bradford and Goodchild saw Roman elements in the model, but as we have seen with the Mouzon models, the rounded shoulders and lack of a guard are more typical of Iron Age swords.[103] The oval shield, measuring 60 x 35 mm, has an egg shaped boss, and a grip at the back which is almost completely corroded away.

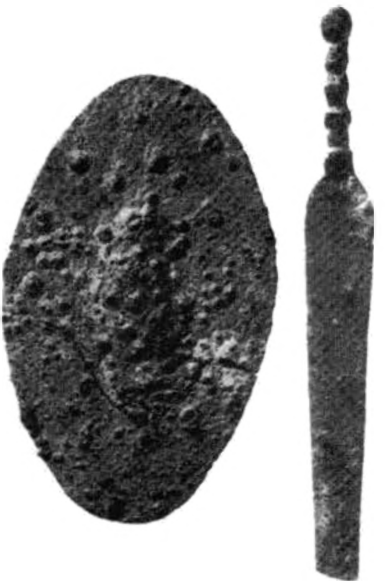

Fig. 3.10. Miniature shield and sword from Frilford. Bronze, 1:1.(After Bradford and Goodchild 1939: Plate 5B).

A complete miniature shield and fragments of two others were found in the Romano-Celtic temple at Worth, Kent in 1925 (**fig. 3.11**). The excavations of this site seem to have been hasty, and the short published report describes only two stratigraphic layers: one Roman, the other Iron Age. Post holes found below a chalk floor led the excavators to suspect that the Roman stone structure was the successor to a wooden Iron Age temple. The Iron Age stratum, in which the three shields were found, contained only pre-Roman pottery and *fibulae*.[104] The latest find in the Roman level was a coin of Constantine. While the two-part division of the excavators is probably simplistic, a late Iron Age or very early Roman dating seems quite likely for the shields.

All three of the models from Worth are made of bronze. The one complete shield (**fig. 3.11.i**) measures 112 x 44 mm, has a circular boss, and is slightly bent. Two rivet holes, and markings either side of the boss on the back indicate that the model once included a horizontal grip. The other two fragments, if correctly reconstructed, are more unusual. Both were probably oblong or oval shapes. Given the profile of its edges, one (**fig. 3.11.iii**) must have incorporated multiple circular bosses. The Iron Age Wittenham shield and the Battersea shield cover include two circular fields of raised decoration above and below a central boss, and it is also possible that this is what the Worth model means to represent.[105] The final fragment (**fig. 3.11.ii**) has a central boss, around which a cruciform pattern of lines has been scratched.

103 Bradford and Goodchild 1939: 14.

104 Klein 1928: 79-81.

105 Stead 1985 and 1991: 1-9; James and Rigby 1997: 12-13.

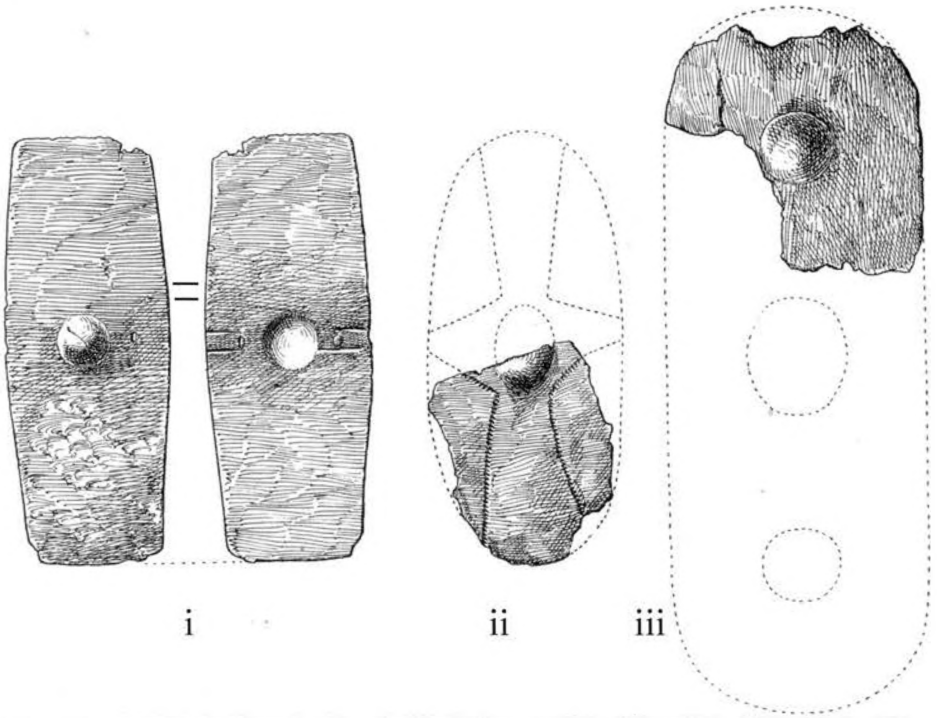

Fig. 3.11. Model Shields from the Temple Worth. Bronze, 1:2. (After Klein 1928: 80, fig. 11).

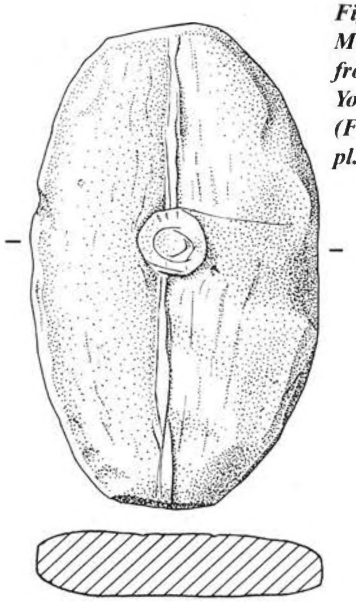

Fig. 3.12. Chalk Model of a Shield from Garton Slack, Yorkshire. 1:2. (From Stead 1971: pl. 4d).

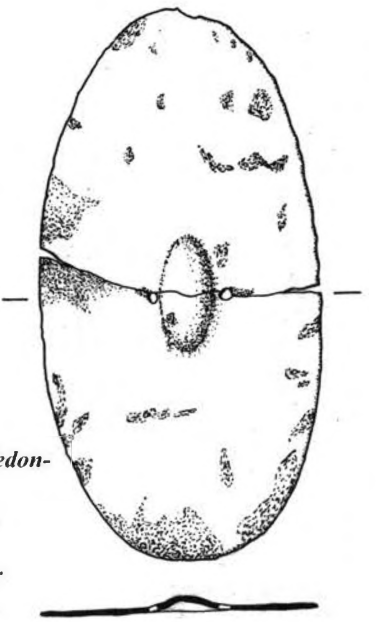

Fig. 3.13. Breedon-On-the-Hill, Leicestershire. Bronze, 1:1. (From Wacher 1977: fig. 4a).

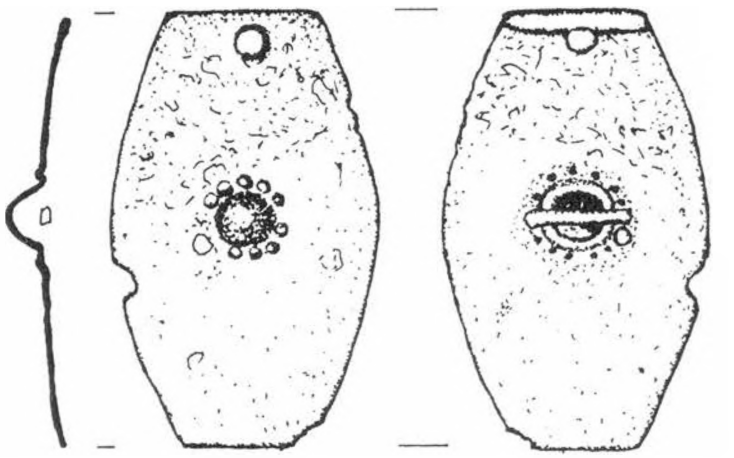

Fig. 3.14. Model shield from Dalheim, Luxembourg. Bronze, 1:1. (From Reinert 1997: fig. 3.1).

Another Iron Age model shield was found at Garton Slack in Yorkshire (**fig. 3.12**). It is a 13 cm long chalk representation of an oval shield with a circular boss and *spina*. Both the raised centre and circular flange of the shield boss are depicted, while the two lines of the *spina* are slightly off centre from one another. The carving was found along with early Iron Age pottery and 13 warrior figures carved in the same material.[106] Chalk representations of warriors relatively well documented, though the model shield seems to be unique. The sculptures date from the first century B.C. to the first century A.D, and seem to be limited to the Arras culture of Yorkshire.[107] The same dating should probably be applied to the shield.

Another oval bronze model shield (72 x 36 mm, **fig. 3.13**) was found at the Iron Age hill fort at Breedon-on-the-Hill, Leicestershire. It was recovered near two disturbed burials, though there does not seem to be enough evidence to associate the shield with them. It is a flat model with a raised egg shaped boss and two holes for the rivets of a lost grip. It has been identified by Wacher as a depiction of an Iron Age shield.[108] Given the presence of a nearby Iron Age hill fort and the egg shaped boss, this dating is probably correct.

A surface find from the gallo-Roman *vicus* Dalheim in modern Luxembourg (**fig. 3.14**), has much in common with the Mouzon shields. It is a bronze model shield (55 x 34 mm), roughly hexagonal in shape, with rounded lateral sides. The boss is conical, and surrounded by circle of smaller bumps that represent nails that would have joined a real metal boss to the wooden body of the shield. A horizontal grip has been riveted onto the back, and the miniature shield has been

106 Stead 1971: 32-34, pl. 4d.

107 On chalk sculpture in Britain in general see Stead 1988.

108 Wacher 1977: 4-6 and Wacher 1979: 44, fig. 22.

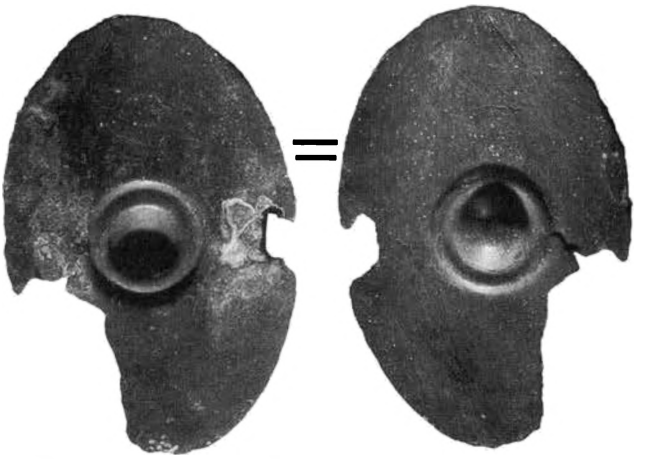

Fig. 3.15. Model Shield from Langley, Oxfordshire. 1:1. (After Green 1987).

pierced near in centre of its upper the edge. This piercing, which was made from behind the model, is surrounded by iron oxide, and the upper edge is bent slightly forwards.[109] These details suggest that the shield was nailed to a surface from behind (with the boss facing the surface to which it was being attached), and was later roughly pulled off, resulting in the bending. Piercings in the model shields of Mouzon are mentioned in the initial reports, though no examples were present amongst the examples available for viewing. The Dalheim shield has no find context, though the *vicus* included a Romano-Celtic temple, and, like Mouzon, lies on the same Roman route that connected Metz and Trier.

In 1982, an oval bronze model was found by a metal detectorist near Langley in Oxfordshire (**fig. 3.15**). It is flat and measures 59 x 32 mm. The plain hemispherical boss is surrounded by a raised edge representing the flange by which it was attached to the shield. Two lumps of solder can be seen on either side of boss at the back, which probably correspond to a lost grip. Though described as a replica of an Iron Age shield because of its shape, the Langley model could also represent the shield of a soldier in the Roman auxiliary.[110] Given the relatively high quality of this miniature shield and the presence of solder, it is also possible that it was once attached to the arm of a bronze statuette.

Two recent finds of model Iron Age shields by metal detectorists should also be mentioned here. The first (**fig. 3.16**) was found in 2001 near Alcester, in Warwickshire, and is now in the Warwickshire Museum.[111] It is roughly oblong, measuring 78.5 x 36.5 mm with a round boss. A grip has been riveted to the shield across horizontally behind the boss. A single line and a row of dots run around the edge of the shield on the frontal face. Incised lines extend from the central boss

109 Reinert 1997: 395-396.

110 Green 1987.

111 Acc. No A 11454. This find was also reported in the Portable Antiquities Scheme database (WAW-9BB642). My sincere thanks to Sara Wear of the Warwickshire Museum for answering my enquiries and providing digital photos of the shield.

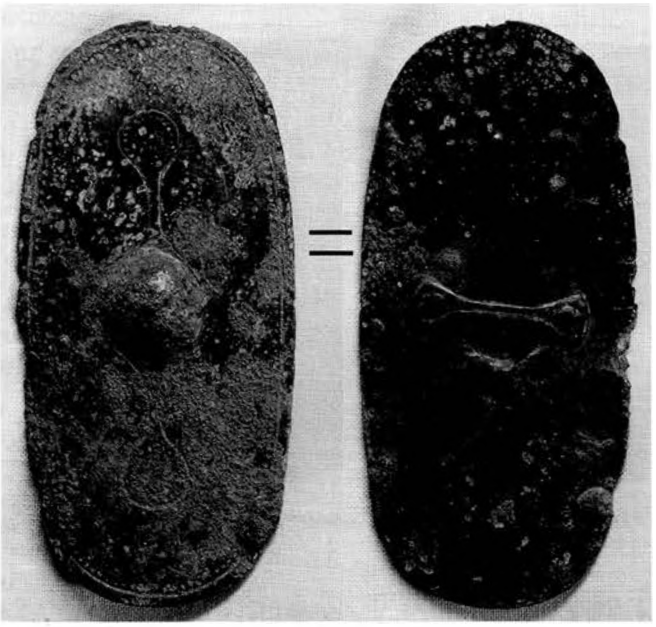

Fig. 3.16. Model Shield from Alcester, Warwickshire. Bronze, 1:2. (Photo by the Warwickshire Museum).

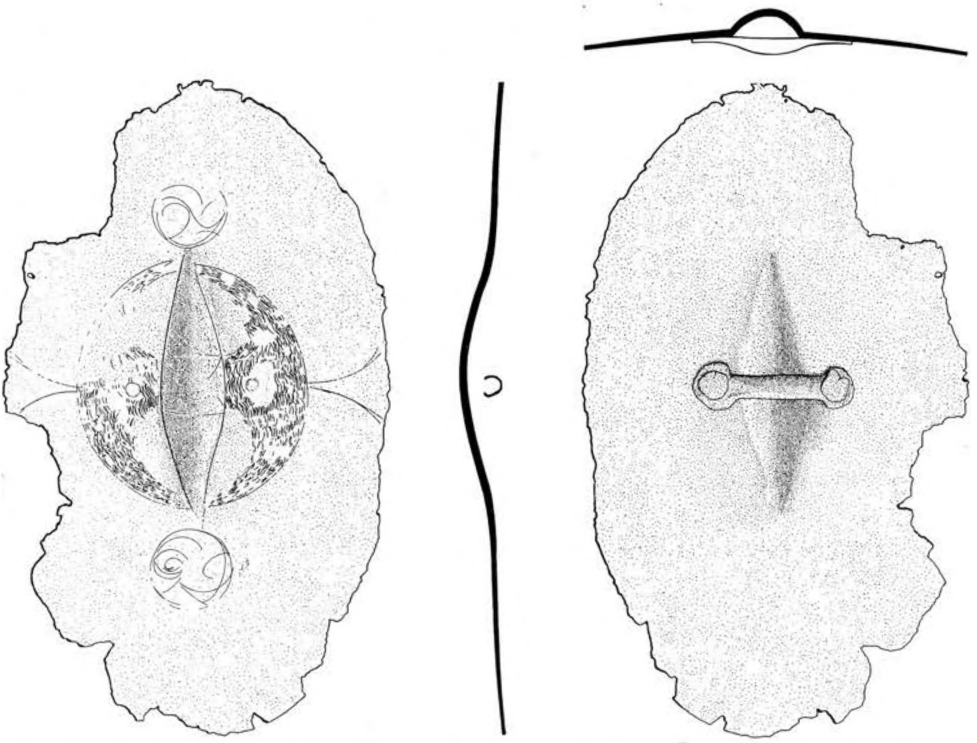

Fig. 3.17. Model Shield from Barmouth, Wales. 1:2. (National Museum of Wales, Cardiff).

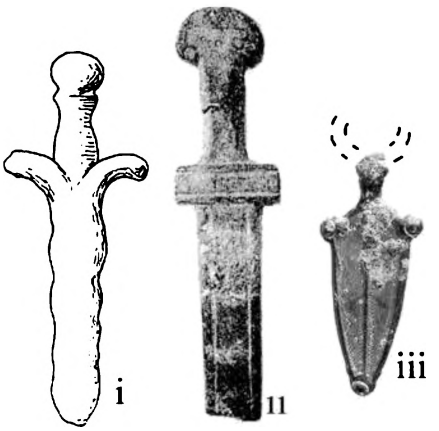

Fig. 3.18. i) Chesters, Miniature Bronze Sword. (From Green 1981: fig. 4.4b) ii) Woodeaton, Miniature Bronze Sword. (Bagnall-Smith 1998: fig. 1.2.1) iii) Fesques Miniature Potin Sword. (Adapted from Mantel 1997: 153) All 1:1.

above and below, swelling into roundels containing circles of dots.[112] The second model shield was found in the mid 1990's at Tyddyn Mawr Farm, near Barmouth in Wales, and has since been acquired by the National Museum of Wales (**fig. 3.17**).[113] The edges are badly corroded, but the oval shape is easily recognisable. At the largest preserved points it measures 86.5 x 50 mm. A horizontal grip has been riveted on behind the raised spindle shaped boss, and the front face is decorated with an incised pattern consisting of two small circlets above and below the boss, and a larger circular pattern of numerous small incisions. Like the third shield fragment from Worth (**fig. 3.11**), the decorative circles above and below the bosses of these two models recall the decoration of the Battersea shield and Whittenham shield cover.

A few more individual model weapons can be added to the shields listed above. The Chesters Museum (Northumberland) possesses a 43 mm long bronze sword (**fig. 3.18.i**).[114] It has a globe shaped pommel and curved hand guard suggestive of an Iron Age prototype. Sadly, nothing seems to be known about its find spot. A more distinctly Roman sword has recently been identified in a collection of material from Woodeaton (**fig. 3.18.ii**). It has the round pommel and straight hand guard that characterise Roman types. The temple at Woodeaton probably had an Iron Age pre-cursor, and was in use until the mid fourth century A.D. The site has produced a small bronze shield model spears, axes and coin impressions.[115] Like most of the objects from Woodeaton, the sword model stems from a private collection and has no good archaeological context within the site itself. It is 54 mm long, but is broken along the blade.[116] The quality of this piece is quite high

112 Now in the Warwickshire Museum A11454.

113 Grid Ref. 6220. National Museum of Wales Inventory Nr. 2001.37H. I am grateful to Adam Gwilt of the National Museum in Wales, and Philip MacDonald who is preparing the initial publication of the shield and kindly allowed me access to his notes.

114 Green 1978: 55, Chesters no. 13, pl. 125 and Green 1981: 268, fig. 4b.

115 Goodchild and Kirk 1954: 123-125. See below **3.7, fig. 3.25 3,10 fig. 3.33 BR61.i-iv**; and **5.3, fig. 5.4.**

116 Bagnall-Smith 1995: 199, footnote 164-5 and 1998: 151; Frere 1990: 262. It is possible that the bronze model breast also reported is actually a model shield. Bagnall-Smith also mentions four sword model swords found in the excavations of Harlow temple, but these remain unpublished and I have been unable to obtain more information as to their whereabouts.

in comparison to the other models discussed here, and one wonders if it was not originally part of a bronze statuette.

A small (36 mm long) potin representation of a sword in its sheath was found in the central offering pit at of one of the two *cellae* in the sanctuary of Fesques, Seine-Maritime (**fig. 3.18.iii**).[117] The roughly triangular sheath terminates in a globe at each corner. Raised lines run along the sides and centre of the sheath and are followed in the field by incised zig-zag lines. The shoulders of the weapon slope into the grip which itself terminates in a round pommel. The re-enforced sides and circular terminals are clearly copied from the scabbards of early La Tène swords and daggers.[118] The pommel is damaged, and it has been proposed that it once included a suspension ring. This supposition is supported by a parallel silver example from Vaires-sur-Marne (Seine-et-Marne) where the ring is intact.[119] Thus this little sword could just as well have been a worn amulet or a piece of jewellery as a votive model. The pit in which it was found was filled and replaced with an altar in the early Roman period, so the sword is probably no later than the early first century A.D.[120]

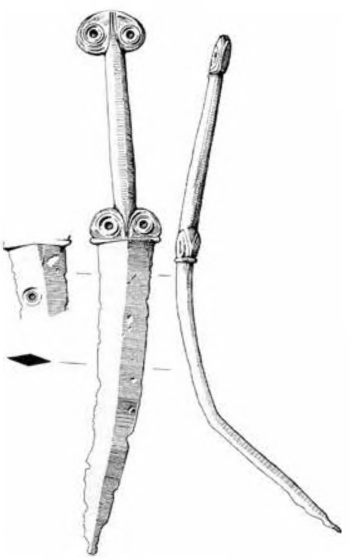

Fig. 3.19. Miniature Sword from Braifield, Northhamptonshire. Bronze, 1:2. (After Friendship-Taylor 1986: fig. 1).

Two more model swords are said to have been found in the area of Castor, but I have been unable to obtain illustrations. One is thought to copy a gladius, while the other has a rounded tip like a *spatha*.[121] A miniature (L. 25 mm) sacrificial knife has been identified at Eccelson in Cheshire, but it is so fragmentary that its identification as such must be considered doubtful.[122] A much more complete find, and a better candidate for a votive model, was found by a field walker in Braifield, Northhamptonshire (**fig. 3.19**). The area is said to have yielded late Iron Age and early Roman pottery. The bronze sword measures 154 mm in total length, and is sharply bent along the blade. Traces of the casting lines can be seen on the edges of the grip. The hilt and grip both incorporate two swirled motifs which, like the Fesques pendant, are reminiscent of true Iron Age swords. A small pellet and dot motif appears towards the base of the blade. Friendship-Taylor interpreted the

117 Mantel 1997: 268, find 318.99 Also illustrated on the colour plate on page 153.

118 For examples see Jope 2000: pl. 20d, 26a, 26b, and 26d-27.

119 Bulard and Douhout 1981: 360 fig. 13.

120 Mantel 1997: 22.

121 Green 1976: 208;Friendship-Taylor 1986: 151. Peterborough Museum (Inv. Nos. 374 and 376).

122 Petch 1975: 34-35, fig. 8 no. 2.

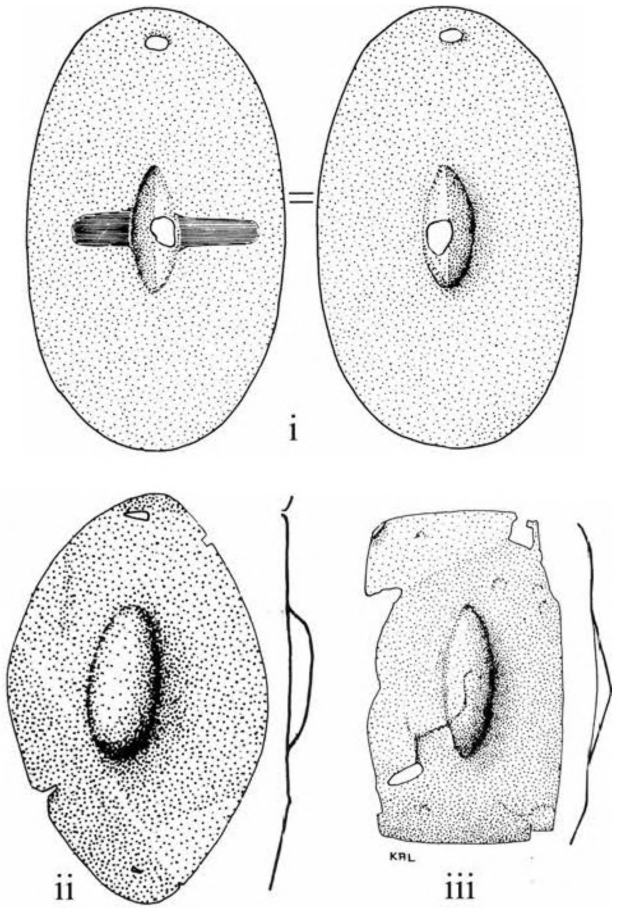

Fig. 3.20. The Kirmington Miniature Shields. Bronze, 1:1. (Illustrations by Dr. Kevin Leahy, North Lincolnshire Museum).

model as a dagger rather than a sword on the basis of the shape of the blade.[123] Given the large size of this object, and the presence of a casting line, one wonders if it might not be a modern toy or letter opener rather than an Iron Age or Roman object. It is certainly quite unlike any of the other models discussed in this chapter. The mutilation of the piece, and the ring and dot motif stamped on the blade, however, are points in favour of an antique date.

Field walking at Kirmington in Lincolnshire in the early 1980's produced a number of miniature objects and other finds, which together seem to indicate the presence of a Roman temple.[124] Arial photography of the area has shown the clear outline of a Roman fort, which partly overlaps a settlement. Finds of both Iron Age and Roman material from the general area are quite common.[125] The models include two miniature axes, a gladiator's helmet, two model swords, and three bronze shields.[126] Two of the shields are oval, and one is rectangular. The first oval shield (**fig. 3.20.i**) measures 58 x 34 mm, and has a spindle-shaped boss. Two blackened sections behind the boss probably correspond to a lost grip that was attached

123 Friendship-Taylor 1986: 149-150.

124 Leahy 1980; Henig and Leahy 1986.

125 Riley 1977: 189-192.

126 Now in the North Lincolnshire Museum (formerly the Scunthorpe Burrough Museum) Acc. Nos. SMAG:14.6.1979/10, SMAG:30.7.1981/1, and SMAG:11.4.1979. My thanks to Dr. Kevin Leahy for his prompt response to my enquires, and kind permission to illustrate the shields. The helmet and swords are discussed below (**fig. 3.21**), and the miniature axes are **BR30.i-ii.**

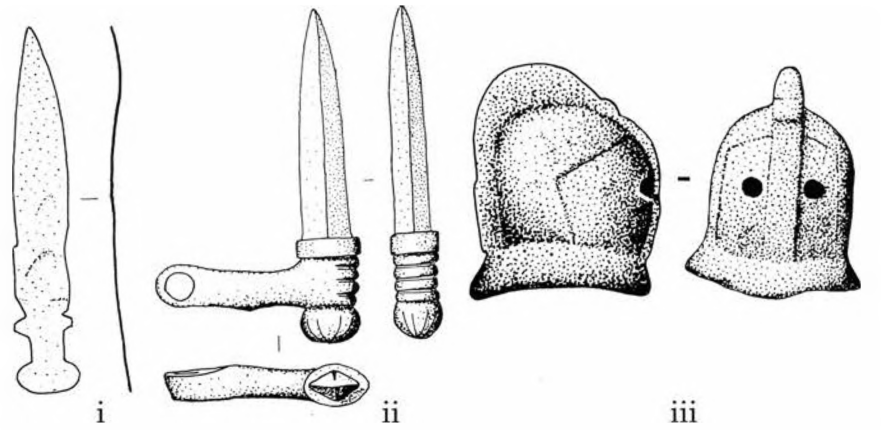

Fig. 3.21. Miniature Gladiatorial Equipment from Kirmington. Bronze, All 1:1. (Illustrations by Dr. Kevin Leahy, North Lincolnshire Museum).

by means of solder, and there is a nail hole in its top end.[127] The second oval shield (**fig. 3.20.ii**) is slightly less regular in form and has a slightly larger egg-shaped boss. It measures 52 x 33 mm. There are two very small holes at the top and bottom of the shield which have been punched from the front side. The rectangular shield (**fig. 3.20.iii**) has a spindle shaped boss, and measures 41 x 24 mm. The edges of this specimen are badly damaged, and the holes in it are probably natural rather than the result of nailing. Shields of this shape are not proper to the normal equipment of Roman gladiators, and the nail hole in the most complete specimen does seem to suggest display and a votive interpretation.

Gladiatorial equipment is, of course, an undeniably Roman find. The bronze model helmet from Kirmington (**fig. 3.21.iii**) is 21 mm high, and 16 mm in diameter. It is easily recognisable as the helmet of the *secutor* – with a face mask incorporating two round eye holes, and an enforced nasal strip. A short crest runs over the top of the helmet, which flares out at the base to protect the neck. In gladiatorial games, the *secutores* fought with a sword and shield, and were usually paired against the *retarius*, who was armed with a trident and a net. This combination seems to have been established in the late thirties A.D., and remained a standard feature of gladiatorial exhibitions until the third century.[128] Life-sized helmets comparable to the Kirmington model were found in the barracks of the gladiators at Pompeii, and various depictions of *secutores* wearing similar helmets are known in Roman art.[129] A bronze statuette of a *secutor*, found

127 Leahy thought that the hole in the boss of this shield was also the result of a nail. Given the hole's irregular shape in the illustration, this seems improbable, though a nail hammered through the boss might have resulted in the loss of the handle. It is more likely that the hole in the boss is the result of corrosion.

128 Junkelmann 2000: 56-58. Leahy (1980: 327) refers to the helmet as that of a 'samnite' (*samnis*) which is the pre-Augustan term for the *secutor*.

129 Junkelmann 2000: 187, cat. nr. H34-36.

near the amphitheatre in Arles has a hinged mask that can be lifted to reveal the gladiator's face.[130] Leahy has also noted representations of the *secutor* in various media in Britain.[131]

The two bronze model swords from Kirmington both seem to represent Roman *gladii*, and like the helmet have been described as votive models.[132] The first model sword (**fig. 3.21.i**) is crudely cut from a thin piece of bronze, with a slight grove emphasizing the hand guard. It is 49 mm long, 8 mm wide, and about 0.4 mm thick. Though it lacks a loop or piercing, it is not dissimilar to the two models from Baâlons-Bouvellmont described below (**3.28, fig. 3.24**). The second (**fig. 3.21.ii**) is a more plastic representation of a *gladius* and is held in a forearm which terminates at the elbow in a flat loop. Leahy and Henig suggested that this find was originally the moving part of a figurine.[133] Though the models are crude representations, the round pommels and straight hand grips do follow the pattern of *gladius* of either the Mainz or Pompeii type. While pre-Augustan gladiators used swords similar to those of Roman soldiers, Junckelmann noted that gladiators of the imperial period were armed with swords that reflected older Greek weapons, with a flat cylindrical pommel.[134] Still, a round pommel similar to that of a soldier's weapon can be seen on some gladiator figurines, and it may be these details were simply lost in the process of miniaturisation.[135] Bronze statuettes of gladiators with moving parts are known, as the figurine from Arles mentioned above demonstrates.

While the thin model sword from Kirmington (**fig. 3.21.i**) could easily be a fragmentary dress accessory, the model sword and arm and helmet allow for another non-ritual interpretation. In fact, it seems far more likely that they were meant as souvenirs of gladiatorial combats than as the votive offerings of gladiators. Roman military installations, such as the one identified at Kirmington, often included small amphitheatres in which games were staged. Numerous artefacts have been identified as souvenirs relating to gladiatorial games, including bronze gladiator figurines, though oil lamps and drinking vessels depicting scenes from the games are more common. Amongst the finds from the gladiator's camp at Pompeii is a decorated bronze miniature shoulder guard (*galerus*) of a *retarius* to which a plaque in *tabula ansata* form is attached by a chain. The plaque reads 'RET(arius) SECUND(us)' – 'The Retarius Secundus'. Junckelmann and others have identified this model as a votive dedication, but Ernst Künzl and Gerhard Koeppel have recently proposed that it was a souvenir sold to visitors of the

130 Junkelmann 2000: 58-59, figs. 75-76.

131 Leahy 1980: 327.

132 Henig and Leahy 1986.

133 Henig and Leahy 1986: 389.

134 Junkelmann 2000: 91-92.

135 *E.g.* A clay figurine in the Fitzwilliam Museum in Cambridge (Junkelmann 2000: 58, fig. 74) and a bronze statuette in the Musée des Antiquités Nationales in St.Germaine-en-Lay (Junkelmann 2000: 110, figs. 156-157) both with no known findspot.

games.[136] The same explanation also seems more plausible for the Kirmington swords and helmet. The different types of gladiator were distinguished by variations in their equipment, of which the helmet was easily the most visible identifier. As such, a miniature helmet would have made an appropriate keepsake.

Though many of the individual finds discussed above are quite similar to the model weapons found at Mouzon, it would be rash to continuously apply the same interpretation. Numerous bronze statuettes would have included miniature swords and shields that would have been soldered on. For example, the common Mars and Athena figurines regularly included shields and swords.[137] These attachments may well have lost any trace of the join or solder which once connected them to their masters. Iron Age style shields appear in number of bronze statuettes depicting fallen Celts and *tropaia*.[138] While some of these finds are almost certainly votive offerings, the nature of others is more questionable. The next section considers a number of finds which have sometimes been considered to be votive offerings, but which are actually elements of ancient costume.

3.6. Miniature Swords / Pocket Knives with Scabbards of Bone and Bronze

A miniature sword and shield, found in a pit near the entrance to the monumental fountain at the Romano-Celtic temple complex of Argentomagus (St. Marcel, Indre, France), provide a good starting point for this section (**fig. 3.22.i-ii**).[139] The hexagonal shield is made of bronze, and measures 150 x 90 mm. Apart from the round central boss, behind which there is no grip, the shield is flat. A suspension loop runs through a hole near its upper edge. The 125 mm long sword is a very elegant model composed of iron and bone. It has a 50 mm long ribbed grip with a round pommel and straight guard made of bone. The bone elements are all attached to the tang of the iron sword. The iron blade is broken a few millimetres after the guard, but when complete it would have fitted into the accompanying bone scabbard. The 75 mm long scabbard has a decorated rectangular section at the top, which is flanked by two holed flanges. The main body of the scabbard is decorated with two pairs of vertical lines. It is rounded at the bottom, and there are two decorative wings flanking the tip. Given their context, these models certainly seem to be substitutional votive offerings, but can be equally convincingly placed in groups of other more mundane Roman finds.

136 Junkelmann 2000: 80 and 186, cat. no. G4, fig. 113 and 332; Künzl and Koeppel 2002: 23, fig. 35. Alternatively, it is quite possible that the miniature *galerus* is nothing more than a name tag, used to identify the personal equipment of Secundus (*retarii secundi*).

137 For instance a statuette of Mars in Boulogne-sur-Mer holds a sheathed sword (Belot 1990: 90-95) and bronze Athena statuettes from Pompeii (Kaufmann-Heinimann 1998: 215, no. GFV11, fig. 156) Avenches (Kaufmann-Heinimann 1998: 278-279, no. GF72. fig. 240), and possibly Waldenburg (Kaufmann-Heinimann 1998: 247, no. GF84, fig. 249) all hold shields.

138 For numerous examples see Bienkowski 1928.

139 Fauduet 1983.

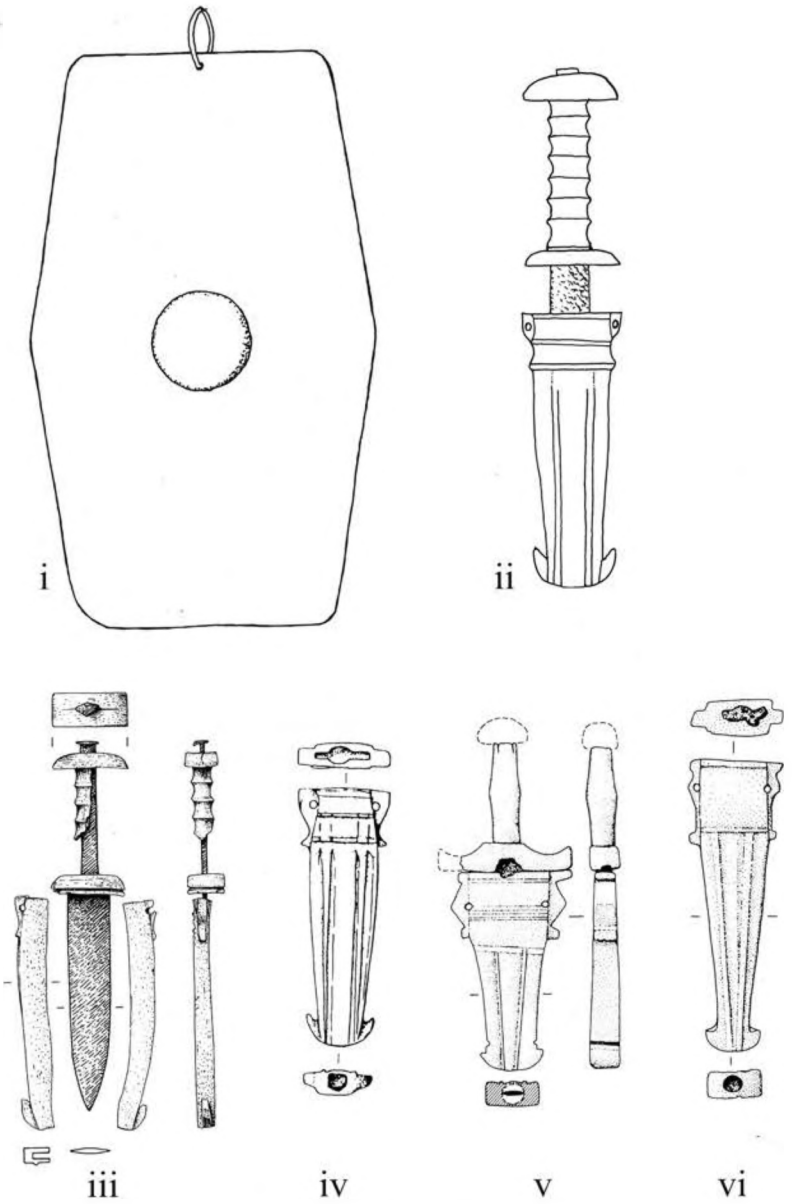

Fig. 3.22. i-ii) Miniature Shield and Sword from Argentomagus. (After Fauduet 1983: fig. 3 and 1a); iii) Rheingönheim iv) Augst v) Millau vi) Lyon. Bronze and bone, all 1:2. (After Béal and Feugère 1987: figs. 8.8 and 9d, figs. 6.26a and 30a).

The Argentomagus sword is one of many similar miniature swords with bone scabbards that have been recently studied by J.C. Béal and M. Feugère. The two authors identified 46 fragments and complete miniature swords of this type

from findspots throughout the north-west provinces.[140] All consist of the same combination of an iron blade with a bone grip and functional bone sheath. Twenty-six of the more complete examples could be classified into two main types based on the form of the bone scabbard. Lengths, regardless of type, varied between 52 and 92 mm, with most specimens measuring around either 55 or 75 mm. The main distinguishing feature of the two types is the form of the flanges at the top of the scabbard. In the case of Béal and Feugère's first type (*e.g.* **fig. 3.22.v**), the flanges are symmetrical shapes, with holes in the centre. With the second type (which includes the Argentomagus example) the flanges are asymmetrical forms, and the holes are placed towards the top.[141]

The pit in which the Argentomagus model was buried dates to the middle of the first century A.D., and ten more dated finds of similar swords range from the late first century A.D. to the early third.[142] The findspots range throughout the north-west provinces, with examples known from Narbonne, Arles, Frankfurt-Hedderheim, Günzburg, Trier, Angers and Verulamium in Britain. There is no particular concentration in Celtic, Germanic or military (Roman) areas. Four examples were found in graves, and three in temples, including the Argentomagus example, but at least five are from domestic contexts.[143] The nature of the remaining findspots is unclear.

Fauduet suggested that the Argentomagus scabbard combined elements of La Tène sheaths, but in essence copied a Roman type.[144] Béal and Feugère, however, noted the same features and further details that belong to Roman period weapons. The diagnostic flanges on either side of the scabbards are unknown on either Iron Age or life-sized examples. Scabbards for true *spathae* were normally mounted on the baldric by a slot attached to the back face.[145] The Roman *gladius*, on the other hand, was usually hung on the belt (*cingulum*) by a mechanism of four rings and two chains, as seen on the famous example found in the Rhine near Mainz-Weisenau, and as depicted on numerous legionary gravestones.[146] These rings are positioned at the same point as the holed flanges of the miniatures, and if they are copying real swords at all, it seems to me that the flanges of the miniatures are roughly representative of this system of suspension. A more accurate reproduction of the four rings could not have been easily imitated on such a tiny scale. Béal and Feugere concluded that the model swords were most similar to representations of the weapons of Greek heroes as they are depicted in Roman art: "Dès lors, nos épées miniatures apparaissent moins comme des modèles réduits d'armes réelles

140 Béal and Feugère 1987.

141 Béal and Feugère 1987: 89-92.

142 Béal and Feugère 1987: 95.

143 Béal and Feugère 1987: 98 and cat. nos. 8, 15, 25, 32 (graves); 1, 18, 24 (temples) and 6, 23, 26, 30 and 31 (domestic).

144 Fauduet 1983: 97.

145 Béal and Feugère 1987: 96, and fig. 5.1-4.

146 Feugère 2002: 108-114; Bishop and Coulston 1993: 69-74. Examples of grave markers include that of the legionary C. Valerius Crispus of Wiesbaden (Feugère 2002: 89, fig. 100).

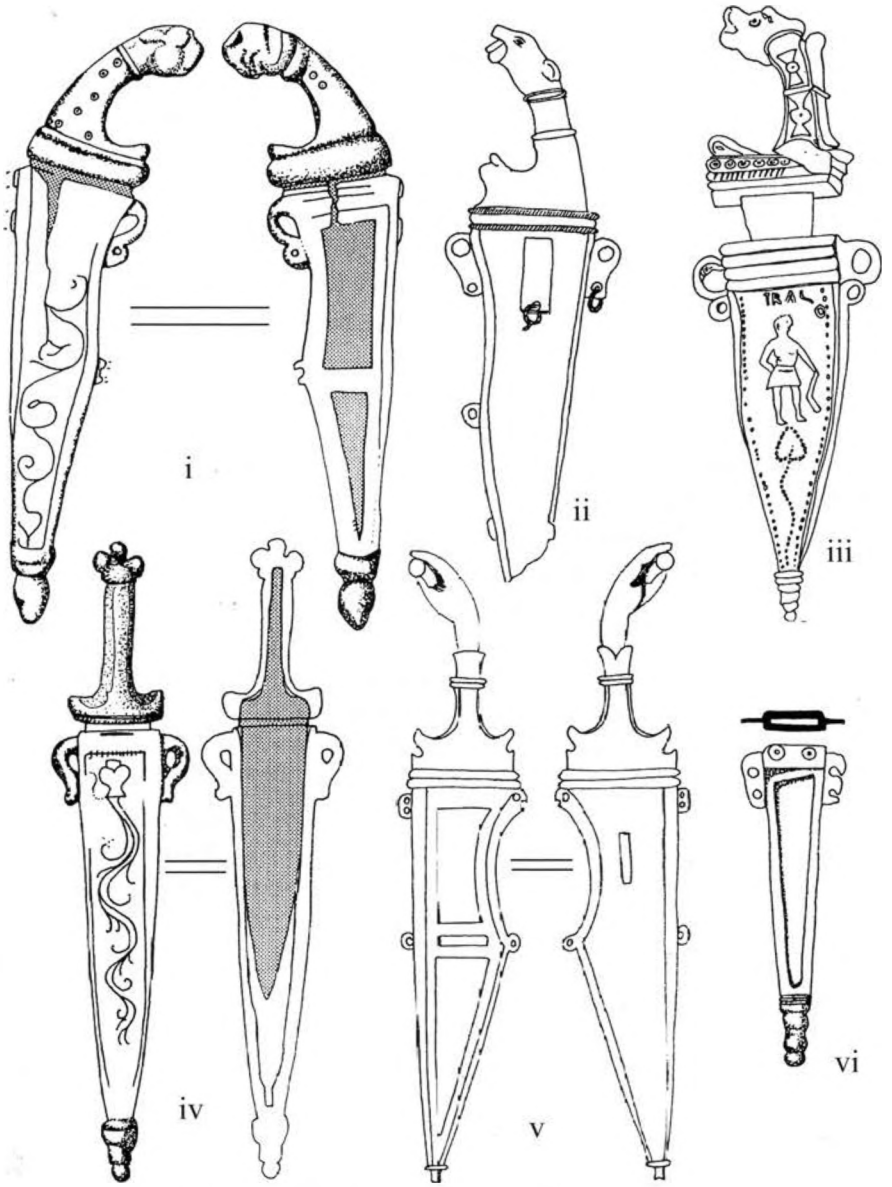

Fig. 3.23. Miniature Knives or Swords from Limousin. 1:2. (After Lintz and Vuaillet 1988: figs. 4 and 5).

que comme de vagues allusions à l'armement gréco-romain héroïque."[147] The half round pommels of the models, and the somewhat longer hand guards seem to support this idea. Both elements can be found on the swords of gladiators, which

147 Béal and Feugère 1987: 96.

after the early first century A.D. are also thought borrow the form of classical Greek prototypes.[148]

The main question concerning these miniature swords is that of functionality. Against Faudet's hypothesis that the Argentomagus model was a ritual miniature, Béal and Feugère concluded that all of these tiny swords were actually functional pocket knives. This proposal was supported in part by other small Roman knives with ribbed grips similar to those of the miniature swords.[149] Interestingly, around the same time, the opposite conclusion was reached by Lintz and Vuaillat, who studied a series of curved knives found in cremation burials in Limousin.[150] Before evaluating the functionality of the first group of model swords, we should first consider the finds from Limousin.

Lintz and Vuaillat examined a total of 21 finds, mostly from burials, and established a typology of three main groups. Their type A (15 specimens) incorporates knives with curved blades over 20 cm in length, and grips that extend from the back of the blade. Associated bronze rivets and chapes show that these knives were once housed in scabbards made of an organic material. Lintz and Vuaillat concluded that these objects were functional hunting knives.[151] The other two types are all well under 20 cm in length. Type B (five specimens) consists of small knives with bronze scabbards, and straight handles in the centre of the blade (**fig. 3.23.iv-v**). Type C (six specimens) consisted of triangular or curved blades, with a curved grip extending from the back of the blade (**fig. 3.23.i-iii**). This type was considered to be a miniaturised version of the larger hunting knives (type A). Both types B and C sometimes included bronze scabbards, with suspension loops or rings mounted on their sides. Both the grips and scabbards of the miniatures are highly decorative. Three of the miniature scabbards have incised leafy patterns, (**fig. 3.23.i** and **.iv**) and one bears a depiction of a man with a shield and the inscription TRAS above. The grips sometimes take the shape of animals (**fig. 3.23.i-iii**), and one is in the form of a hand grasping an oval object (**fig. 3.23.v**). Associated coin finds allowed all three types to be dated to the early second century A.D.

Arguing that the grips of their types B and C were too small for human use, Lintz and Vuaillat concluded that these miniatures were ritual models, produced specifically for use as grave goods.[152] The sword models from Limousin are strikingly similar to the pocket-knives studied by Beal and Feugère, about which the same objection about the grips could also be made. The average length of the grips on the swords studied by Béal and Feugère, including the guard and

148 Junkelmann 2000: 91-92.

149 Béal and Feugère 1987: 98.

150 Lintz and Vuaillat 1988.

151 Lintz and Vuaillat 1988: 173-175.

152 Lintz and Vuaillat 1988: 174.

pommel, is 40 mm.[153] Lintz and Vuaillet's types B and C have a slightly larger average grip length of 51 mm. Neither type seems to leave much room for human fingers to manipulate the blade but, surprisingly, neither length compares too badly to that of other small Roman knives.

The lengths of smaller grips of razors, knives and folding pocket found at Augusta Raurica range between 50 and 60 mm.[154] Those in the British Museum range from 45 to 57 mm.[155] The grips of two small knives from Roman burials in Cologne measure 45 mm and 38 mm, with blade lengths of 53 mm and 64 mm respectively.[156] Thus simple knives of very small dimensions are actually quite common in Roman graves, and need not necessarily be seen as ritual miniatures. A recent survey of tiny knives from east Germanic toiletary sets of the third to fifth centuries A.D. suggests that these too were functional, though the knives averaged a mere 45 mm in total length.[157] The thickness of the model swords may have been more of a problem than their length, but once again, other comparably thin grips can be seen on functional knives.[158]

Though a more thorough study of Roman pocket knives in general is sadly lacking, I am inclined to concur with Béal and Feugère and saw miniature swords as functional pocket knives rather than ritual models. The fact that they are often found in domestic contexts as well as burials seems to contradict a purely ritual function. They also have a wide distribution, and typically appear as individual finds. These facts also speak against the idea of local manufacture for dedication within a sanctuary or for use in specific burials. The animal heads, and hand shaped grip of the Limousin examples are forms that are well known from the grips of other Roman objects, including hairpins, keys, and knives. The flanges and suspension rings on the scabbards of both types would have allowed them to be sewn or otherwise attached to belts and clothing.

While the grips of the miniature swords of both types of miniature sword are certainly not the most practical length or shape, functionality may not have been their most important factor to their owners. Roman pocket knives are often very elegantly objects, and those in the form of miniature swords may have had a sort of curiosity or prestige value that was far more important to their owners than their actual functionality.

153 Béal and Feugère's catalogue includes eight specimens where both the handle and blade are preserved. Since the pommel and guard are only a little thicker or the same thicknes as the grip, it is fair to assume that they could be grasped as well. The average length of the grips alone is 30.1 mm. The average ratio between the length of the blade and the grip is 1.42, or roughly 2:3

154 Riha 1986: nos. 82, 83,84, 86, 87 and 90.

155 Manning 1985: Q2, Q6, Q 14 and Q17, pl. 53.

156 Päffgen 1992: Grave IV, 64 pl. 44.3 (St. Severin); Friedhoff 1991: Grave 59, pl. 67.10 (Jakobstr.).

157 Beilke-Voigt 1994: 108. There is no information on the lengths of the grips.

158 *E.g.* in the British Museum Manning 1985: Q5, Q7,-9, Q13, pl. 53.

3.7. Shields and Swords with Suspension Rings

Fig. 3.24. Bâalons-Bouvellmont, Bronze Miniature Shield and Swords on ring. 1:1. (Photo by the author, Musée des Ardenne).

We may now return to the hexagonal miniature shield found at Argentomagus. The piercing and suspension ring at the top of this model allow it to be connected to a number of other individual finds of miniature shields with the same feature.

A smaller hexagonal bronze model shield (**fig. 3.24**) was found in the topsoil of the Iron Age sanctuary at *Bâalons-Bouvellmont*. This is same sanctuary produced large numbers of miniature spearheads which will be discussed shortly (**3.9**). The model shield is 32 mm long, and flat apart from a raised circular boss. There is no handle or grip on the back. The shield is pierced at the top and was found joined to a suspension ring along with the of two miniature swords.[159] The two swords are relatively crude representations, with ring-shaped pommels. They are thin, two dimensional copies that measure 31 and 33 mm in length. One has a straight hand guard, and an almost oval shaped blade with a rounded point. The other model sword has no guard, curved shoulders, and tapers quickly to a point. On both of these miniature swords, the grip is almost as long as the blade.

Fig. 3.25. Probable miniature shield from Woodeaton. 1:1. (Bagnall-Smith 1998: fig. 1).

Three further miniature shields with similar piercings are known from the Treveran oppidum site at Titelberg in Luxembourg. The ditch surrounding this *oppidum* site produced two miniature shields in a *stratum* dating to the Augustan period.[160] Both are roughly oval with round central bosses. One is silver (**fig. 3.26.i**), the other bronze (**fig. 3.26.ii**). The face of the bronze example is plain, but it is holed towards the top. A suspension ring has been inserted into this hole, and broken ends of two miniature swords are attached. When complete it must have been very similar to the specimen from Baâlons-Bouvellmont. The boss of the silver example is surrounded by six stamped circles. Two groups of three circles are situated at the top and bottom ends of the model, and individual circles flank either side of the boss. These markings probably represent the nails used on real shields to attach the boss and cover the wooden backboard. A break near the top of the model almost certainly corresponds to a hole for a suspension ring. A third bronze example from Titelberg was found out of context during excavations in 1970 (**fig. 3.26.iii**).[161] It is oval with flattened ends, and measures 37 x 13 mm. The boss is circular. Two curving parallel lines of dots have been scratched on

159 Squevin 1985: fig. 4 and 1992: 140, fig. 2.6. Squevin (1992: 140) notes the find need not be associated with the miniatures found below them.

160 Reinert 1997; Metzler 1991: 31-32, fig. 6.

161 Reinert 1997: 395-397, fig. 4.1-4.

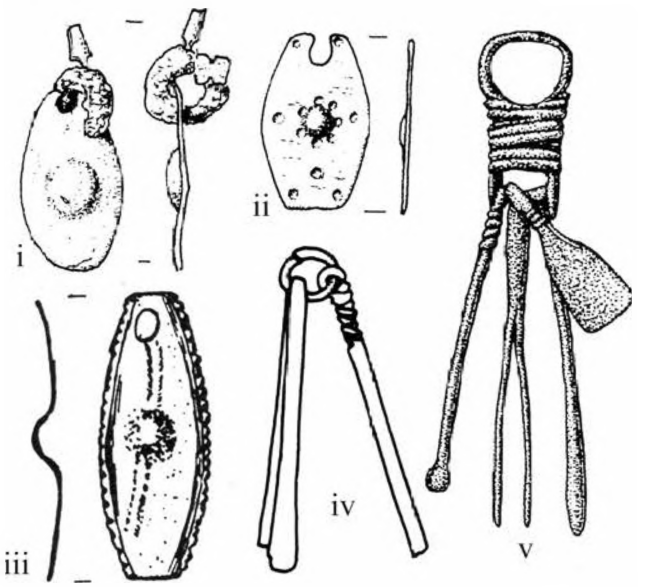

Fig. 3.26. Miniature Shields with Suspension Loops. i-iii) Titelberg (After Reinert 1997: fig. 4); iv) Toiletary Set on a Ring from St. Digeon (Jobic 1986: pl. V.38); v) Toiletary Set on a Hinge from Möhn (From Miron 1989: fig. 6). All Bronze and 1:1.

the face of the shield. The lateral sides are decorated with a fine double line and beaded border. As with the other specimens, there is a large hole, presumably for a suspension ring towards the top.

Finally, a small bronze find from Woodeaton (**fig. 3.25**) most likely belongs to this group as well. Bagnall-Smith identified it as either a miniature votive shield or a model breast.[162] In either case it is a highly stylized representation. As a whole, it is fairly close to the silver shield from Titelberg (**fig. 3.26. ii**), and the shield identification seems more likely. It is a flat oval shaped model with a raised circular boss, which is surrounded by a double row of large raised pellets – presumably a more abstract representation of the nails. A circular indentation in the top end of the model is probably the result of a broken piercing in which a ring was once fitted.

François Reinert argued that the miniature shields from Titelberg and Baâlons-Bouvellmont served a similar function to contemporary sets of toiletary instruments that are joined together by a ring or a hinge (**fig. 3.26.iv-v**).[163] These sets typically include three or four instruments: a nail cleaner, a pincette, an ear-scoop, and a short flat spatula-like tool. Other elements seem to have been purely ornamental. There is a long tradition of miniaturised weapons and tools as elements of eastern Germanic toiletary sets of the late antique period.[164] They were either worn about the belt, or hung on the pins of *fibulae*. The model swords of the Bâalons-Bouvellmont group are not dissimilar to the scrapers, nail cleaners, spatulae or ointment scoops of these sets. Compared to the shields seen in the last chapter, these models are smaller, flatter, and usually lack a handle behind the boss. Objects such as those found at Baâlons-Bouvellmont and Titelberg are sometimes interpreted as votive models, but it is perhaps more likely that they

162 Bagnall-Smith 1998: 150-151, no. 2.2.

163 Reinert 1997: 404; Metzler 1995: 1.313-317, figs. 163.

164 Koch 1970, Beilke-Voigt 1994 and 1998. See also the chapter on *Mithrassymbole* (**8**).

were the decorative components of cosmetic sets. Other miniature weapons used in dress from Germanic and post Roman contexts are discussed below (**3.11.4**).

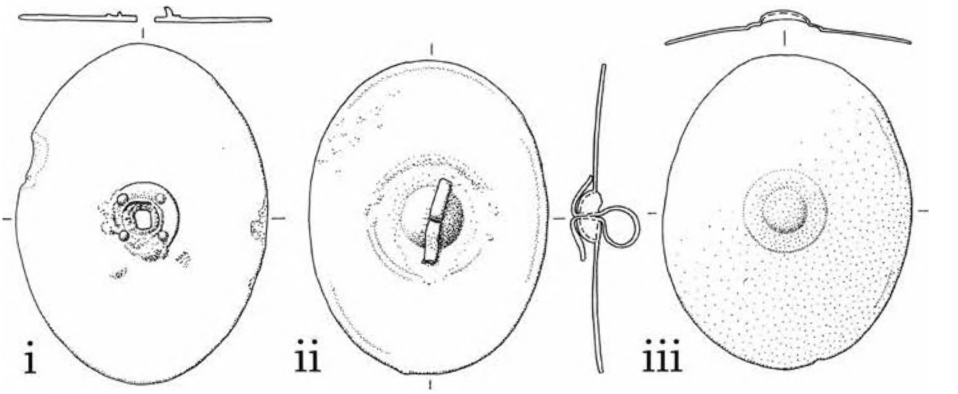

Fig. 3.27. Shield-shaped Baldric Fasteners from Dura Europos. Bronze, 1:2. (After James 2004: 73, nos. 1, 3 and 4, fig. 35).

Though the Argentomagus shield is much larger (150 x 90 mm) than the other finds from cosmetic sets, it is also flat, incorporates a suspension ring, and has no grip at the back. It is impossible to say whether it was manufactured for use as a ritual model, or was part of a similar ensemble of mundane items. It has been argued above, however, that the miniature sword with which it was found was a functional pocket knife. It is possible that these two models found their way into the pit independently of one another, but it is still tempting to consider them as a single deposit. The fact that the primary intention of the miniature sword and shield was utilitarian need not exclude the possibility that they were later re-used as votive offerings. Whether the dedicator's prayer was related to their form, or whether they were simply regarded as items of jewellery, remains unclear.

3.8. Studs, Badges, *Fibulae* and other Fittings in the Form of Arms and Armour

While it might be tempting to identify all roughly shield shaped pieces of bronze as votive models, there are still more mundane possibilities. Various fastenings and fittings of Roman military equipment imitated military equipment. Baldric fasteners in the form of shields were common parts of the Roman soldier's uniform in late antiquity (**fig. 3.27.i-iii**). A number of oval and round examples of these fasteners are known from Dura Europos and the forts on the British and German *limes*.[165] They served to join the two ends of the leather baldric strap at the waist, where the sword was suspended. The fastener was mounted on the broad front of the baldric, and the skinnier back end of the baldric tucked into a metal loop behind it. The loop of the baldric fastener sometimes pierced the centre

165 James 2004: 62, 72-73, fig. 35. Shield shaped decorations, such as the examples from Dura Europos can be seen on various funerary sculptures. (See James 2004: fig. 24, esp. 24.H).

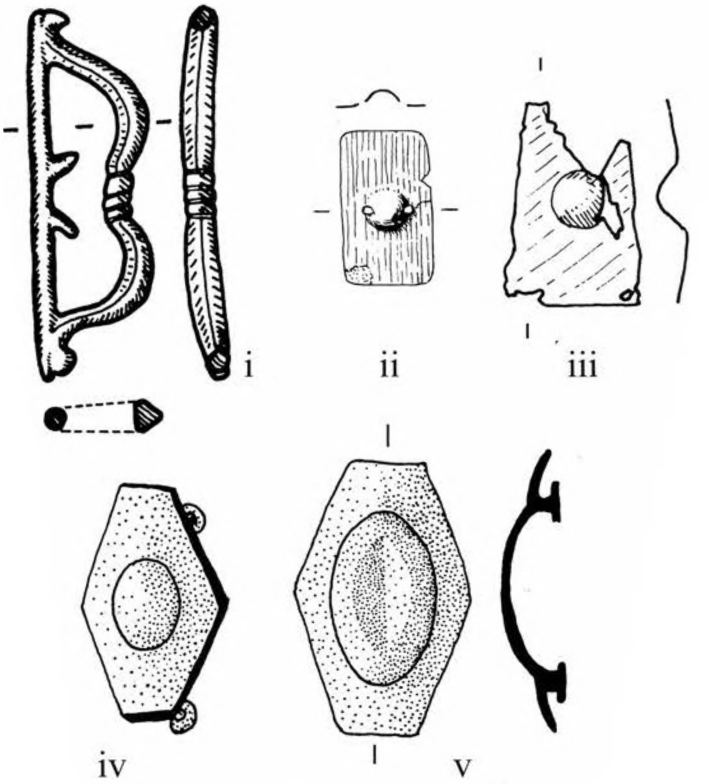

Fig. 3.28. Small Fittings and Attachments in the Form of Military Equipment. i) Răcari; ii) Lamyatt Beacon; iii) Romula; iv) Zugmantel; v) Saalburg. All bronze, 1:1. (Illustrations: i and iii: Petculescu 1995: fig. 1 and 2; ii: Leech 1986: fig. 36.21; iv-v: Oldenstein 1976: pl. 34).

of the circular boss of the shield-shaped fasteners (*e.g.* **fig. 3.27.ii**). The resulting central hole should allow these objects to be fairly readily identified (*e.g.* **fig. 3.27.i**), but in a few instances the loop was attached by solder, which may have corroded away completely (*e.g* **fig. 3.27.iii**). This latter type of attachment was surely used as a decorative plate rather than a fastener, as it is hard to imagine a solder join alone being sufficient to hold the weight of the sword which the baldric supported. Whatever their exact function, the danger of mistaking these quite mundane objects for ritual models should be apparent.

Of the model shields discussed so far, only perhaps those from Kirmington and Langley could be considered possible candidates for baldric fasteners. Those from Kirmington, because there is a military site nearby, and the Langley model because of its close similarity to the Dura Europos fasteners. The two blobs of solder behind the Langley shield's boss seem to suggest a grip rather than a looped fastener though. The Kirmington shields not only include piercings and markings inconsistent with the baldric fasteners, but also have spindle shaped bosses, which are quite foreign to Roman period shields.

Miniature representations of weapons are known in other forms of personal adornment as well. The leather armour and horse trappings of Roman soldiers were decorated with bronze appliqués and studs that sometimes took the form of miniature bows (**fig. 3.28.i**), shields (**fig. 3.28.iii-v**) and swords. This sort of dress accessory seems to have been worn by legionaries and auxiliaries throughout the Roman Empire. There are well documented finds from forts on the German *limes*, Thrace and Dura-Europos.[166] It is possible that these badges and studs served in part to identify particular military units and ranks. The topic of Roman military ornament and decorations is very vast indeed, and we need only acknowledge the danger that such finds might be mistaken for miniaturised votive offerings. In most instances, perforations, loops, fasteners, pins and other elements of these personal adornments separate them from true free standing models, but once again, the pins and fasteners may have been soldered on and have subsequently vanished without leaving a trace. A hole caused by a lost stud could easily be mistaken for the nail hole by which a votive model was displayed. In such cases it is difficult or even impossible to decide whether one is dealing with a ritual model or a dress accessory.

A tiny bronze shield from Lamyatt Beacon (**fig. 3.28.ii**) is a case in point. It is a rectangular shield with a raised circular boss, and measures 19 x 11 mm. Found out of context in the late antique temple, it was identified as a votive model.[167] It is similar in dimensions to those miniature shields from Titelberg, but has no piercing or suspension loop. Instead, there are two small holes either side of the boss. These could be from the rivets of a lost handle, but could equally represent the spot where the rivets of a loop once attached the tiny shield to a leather strap or backing. Given the size of the shield, and its late find context, this seems to be the more likely explanation.

Soldiers serving in the *beneficarii* seem to have been particularly keen to exhibit the symbols of their special status, and frequently adorned their equipment with the emblem of their unit: an ornamental spearhead with two circular perforations (**fig. 3.29.i-iii**) or slits towards the base of the blade (**fig. 3.29.iv**). This sign can be found depicted on numerous gravestones and votive altars of *beneficarii,* and in the form of full-sized iron and bronze standard tips.[168] Miniaturised versions of both types of *beneficarius* lance (with slits and holes) are known in the form of pendants, *fibulae*, studs, the tongues of belt buckles, and have been found on military sites throughout the Roman Empire.[169] It has been proposed that these attachments were used to denote not only members of the *beneficarii*, but also

166 Petculescu 1995 (on Thracian finds); James 2004: 51 (on examples from Dura Europos); Oldentstein 1976 (on finds from the *limes*).

167 Leech 1986: 321, no. 21, fig. 36.21.

168 For a list of inscriptions of the *beneficarii* see Schallmayer 1990b. On representations of the *beneficarius* lance on the stone monuments of the *beneficarius* temple at Osterburken see Schallmayer 1990a.

169 Eibl 1994; Kovács 2003; Oldentstein 1976: 152-157 (on finds from the German *limes*).

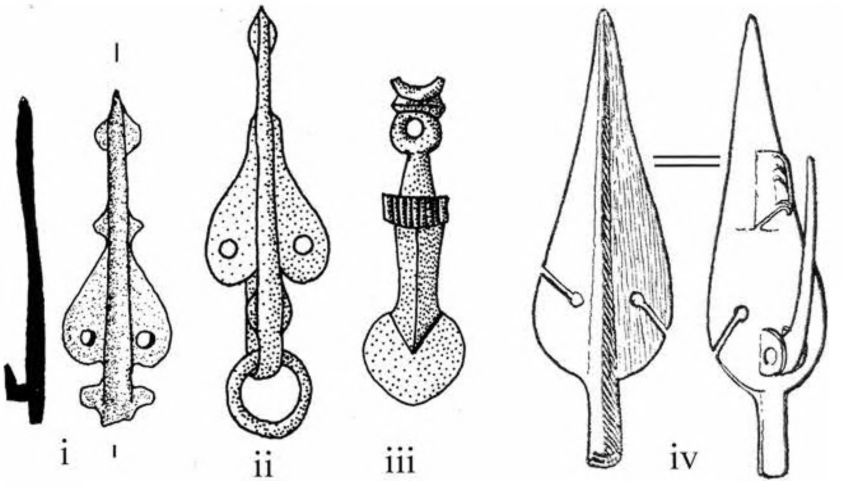

Fig. 3.29. Military Equipment Fittings. Beneficarius Lance Stud and Pendant from (i) Osterburken and (ii) Feldberg; (iii) ring-pommel sword pendant from Osterburken; (iv) beneficarius standard fibula. All bronze, 1:1.
(i-iii: Oldenstein 1976: nos. 368, 378 and 362; iv: Lindeschmidt 1906: pl. 5a.7).

other *principales* such as the *frumentarii* and *speculatores*.[170] Other pendants are known in the form of ring-pommel swords – a weapon which was probably used to denote the special status of certain soldiers.[171] Whatever their significance as military decorations, these objects were primarily functional badges and not were not ritual in nature.

Finally, a miniature bronze suit of muscle armour found in 1931 in Augusta-Raurica, Switzerland, has been identified as a votive offering, but is probably a decorative fitting from a wooden box or piece of furniture.[172] The 92 mm long plaque is a two dimensional representation of both the upper torso and the skirt of the armour. A hole in the middle of this object may correspond to where it was attached to the wooden box with a nail. The votive hypothesis is disproved by a virtually identical bone specimen was found with several other fittings of a wooden box or funerary bed in a burial in Vindonissa.[173]

3.9. Miniature Spearheads

3.9.1. Miniature Spearheads: Description and Findspots.

So far, most of the objects considered have been fairly easily identifiable as either ritual models or non-functional models on the basis of their forms. With

170 Eibl 1994: 287 and 291.
171 Kovács 2005: 960-963; Oldenstein 1976: nos.353-362.
172 Kaufmann-Heinimann 1998: 49-80, no. 154; Fünfschilling 1993: 140 pl. 140 no. 1090.
173 Hartmann 1984: 24, fig. 35.

another category of model weapon, the miniature spearhead, the question of functionality is more difficult to answer. It has already been noted that supposed model spearheads from Mouzon were later recognised as functional weapons (**3.3.6**). Excavations at Bâalons-Bouvellmont, a mere 35 km from Mouzon, however, yielded 170 miniature spearheads that clearly were not. More recently, excavations of the large hilltop site of Acy-Romance, also in the Ardennes, produced a pit containing 1,600 model spearheads. Smaller groups of these similar miniature spearheads have been found at various sanctuaries in Britain and France, but the identification of all of these objects as miniature votive offerings, however, is somewhat problematic.

Only a fraction of the *vicus* under the modern village of Bâalons-Bouvellmont was excavated between 1981 and 1992.[174] The excavations of interest to this study were focused on a cult area in the modern neighbourhood known as La Soragne. This site was situated on the southwest side of the *vicus*, and contained at least three rectangular buildings, which have been interpreted as *cellae*. Situated between the buildings were four very large votive deposits in which most of the miniature spearheads were found.[175] The topsoil above the deposits produced a complete miniature bronze spear (**3.9.3, fig. 3.32.ii**), and the toiletary set described above (**3.7, fig. 3.24**). Activity at La Soragne began in the late Iron Age, and lasted until it was abandoned in the reign of Tiberius. At this point, a new cult area appears on the east side of the *vicus*. This second site remained in use until the end of the fourth century A.D.[176]

The first three votive deposits contained vast amounts of pottery, coins, eight life-sized spearheads, five miniature spearheads, and 15 scraps of chain mail armour. This material was densely scattered in a single *stratum* over large areas not far from the *cellae*.[177] Though the deposits had been disturbed by ploughing, there were no signs of an overall organised structure. Almost all of the ceramic vessels were common carinated bowls of a late La Tène type. A few terra nigra and terra sigillata sherds could be dated to the reign of Augustus and the first century A.D.[178] About half of the intact bowls were deposited upside down, and a few had a coin, miniature spearhead, or scrap of chain mail resting in the upturned base. The coin finds included 252 quarter staters of the Remi, 89 potins, and 301 Roman coins, mostly dating to the Augustan period. The latest pieces

174 Squevin 1988 and 1992. Though an amateur production, Squevin 1988 describes the first three votive deposits in admirable detail. It was published before the excavations had finished, with two more volumes planned but never realised. These were to describe the architecture, and the fourth deposit of miniature spearheads. A copy of Squevin 1988 can be found in the Musée de l'Ardenne.

175 Squevin 1992: 138; Squevin 1988: 6, 9-14. His deposits A-C.

176 Squevin 1992: 138.

177 Squevin 1988: 9-10.

178 Squevin 1988: 16-18.

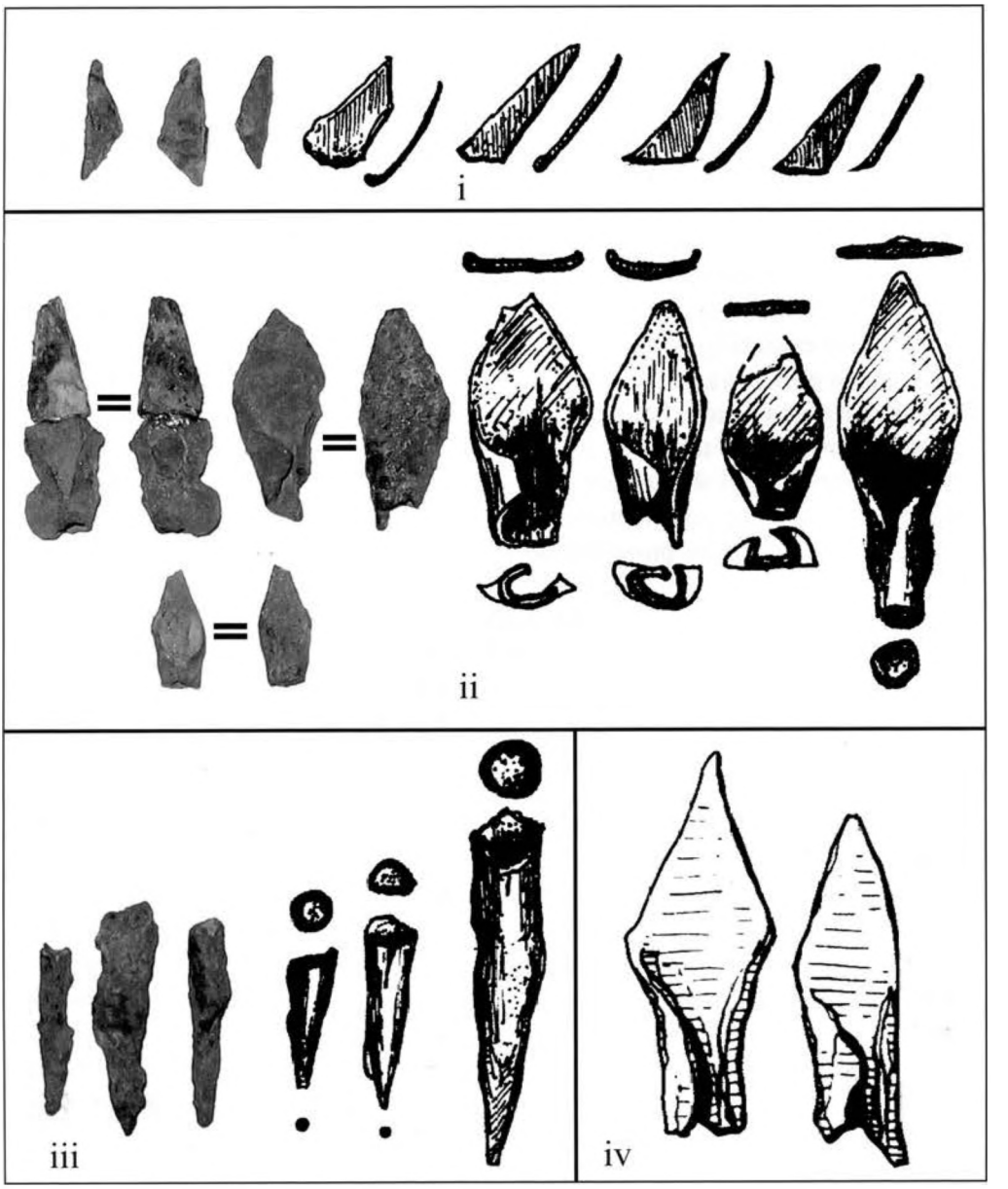

Fig. 3.30. Miniature Spearheads. i-iii) Baâlons-Bouvellmont; iv) Baldock. All iron, 1:1. (i-iii:Photos by the author, Musée de l'Ardenne, drawings from Squevin 1992; iv: Stead and Rigby 1986: fig. 64, nos. 460-461).

were from the reign of Nero.[179] Other datable finds included twelve *fibulae* of the first century A.D.[180]

The fourth deposit contained 480 coins, 12 real spearheads, over 150 miniature spearheads, and very little ceramic. It was found in a single stratum some 30-50 cm below the surface.[181] A 15 x 20 m rectangle of this deposit was excavated, but its full extent was not discovered. The coins were similar in date to those of the first three deposits, but the concentration of potins was considerably higher. This led Squevin to propose an earlier dating for the deposit. Some of the life-sized spearheads had been ritually mutilated, and others were buried with the tip downwards; as if they had been driven into the ground. [182]

All of the 170 miniature spearheads from Baâlons-Bouvellmont are made of iron and are extremely simply made. They can be divided into three main groups. The largest group (**fig. 3.30.ii**) consists of 78 miniature spearheads consisting of simple flat strips of iron that have been bent to form a socket at the base. There is some variation in the basic form, but the lengths range from 13 to 44 mm, with the diameter of the sockets varying between 2 and 5 mm.[183] It is possible to imagine the larger specimens in this group as functional arrowheads, but they would have made poor projectile points. The blade and socket are made such that if mounted on a haft, the blades would sit to one side, rather than in the centre. The next largest group (**fig. 3.30.iii**), with 58 examples, consists of iron sheets folded into simple conical prisms that range in length from 18 to 44 mm.[184] Traces of wood were found in the sockets of all three of these types, suggesting a lost wooden haft. The remaining 19 examples (**fig. 3.30.i**) consist of flat pieces of metal cut into shape of scalene triangles ranging in height from 16 to 20 mm. The triangles are far too small and abstract to be actual imitations of spearheads. It is more likely that they are the by-products of clipping metal, or producing the other model types.

The largest comparable find of miniature spearheads is from Acy-Romance. This important site is much larger than Baâlons-Bouvellmont, encompassing 3,500 m^2 situated on a plateau. Occupation of the site began around 180 B.C., and domestic structures seem to have been intentionally aligned around an earlier Bronze Age burial mound.[185] Apart from these domestic structures, the site includes an artisanal sector, burials, a palisaded cult area, temples, and various ritual pits. The latter features include some spectacular evidence for human sacrifice. The

179 Squevin 1988: 28-38.

180 Squevin 1988: 43-44.

181 This deposit is the subject of Squevin 1992.

182 Squevin 1992: 139.

183 This group consititutes Squevin's types B (27 miniatures) and C (51 miniatures). The difference between these two types is unclear to me.

184 At least one similar, and presumably functional, arrowhead of this type is known from a deposit of weapons at Otzenhausen. It measures c. 80 mm. Metzler 1991: fig. 12.1. Very little seems to be known about Iron Age arrowheads in general, see Brunaux 1987: 95-96.

185 Lambot 2003: 47.

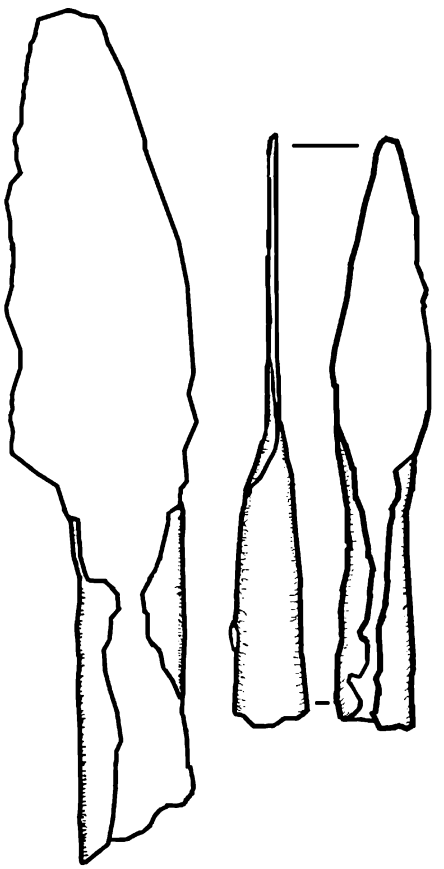

Fig. 3.31. Two Examples of Model Spearheads from Acy-Romance in the Musée de l'Ardenne. Iron, 1:1. (Drawn by the author from photos)

site was completely abandoned between 30 and 40 A.D., and excavations have been underway since the late 1970's. Good preliminary reports have appeared, though as of yet there is no monographic publication. The pit containing the 1,600 miniature spearheads seems to have been uncovered between 1999 and 2003, and has not yet been published.[186] A few examples are currently stored in the Musée de l'Ardenne (**fig. 3.31**).

The miniature spearheads were found in a large conical pit over 7 metres deep, just outside the fence of the large ritual enclosure. The pottery in the debris filling the top of the pit dated to the first century A.D., while the finds in the bottom included a Nauheim type *fibula*, glass bracelets and some Celtic coins. These finds give a lower date of around 80 B.C. Associated pottery could be dated to La Tène D1. Other finds included a few fragments of life-sized weapons (functional spearheads, a shield boss, scabbards, a sword blade) the remains of *amphorae*, and a *dolium* filled with the models. Some thirty miniature vases were also found, but no illustrations have been published. Pieces of carbonised wood and nails found in the pit have been attributed to wooden chests, but a wooden structure above the pit for holding the offerings is also possible. The models themselves are similar to those from Bâalons-Bouvellmont, though the simple triangle type is not represented. All of these miniature spearheads are composed of iron sheets, including fragments of metal described as being cut up from actual weapons. Lengths ranged from as little as 15 mm to as much as 150 mm, with the quality of worksmanship stretching from summary representations to credible copies. Lambot has claimed to see the hands of two different smiths in the deposit.[187]

186 The main publications on the Iron Age periods of the site are Lambot 2003; Lambot and Meniel 2000; and Lambot 1999. A request for further information about the miniature spearheads from the excavator was refused. A few examples of the miniature spearheads are held in the Musée de l'Ardenne, where I was able to view them.

187 Lambot 2003: 49.

Isolated instances of miniature spearheads are known from other sites as well. Two spearheads from the Gallic sanctuary at Corent (Puy-de-Dôme) are described as miniatures and are similar to those found at Bâalons-Bouvellmont.[188] In Britain, a deposit of 32 miniature spearheads were found at the Iron Age and Roman settlement at Baldock, Hertfordshire, in a third century well (**fig. 3.30.iv**) and contemporary pits nearby produced six further examples.[189] Yet another pit included two miniature spearheads and a complete bronze model spear.[190] The various pits and trenches, as well as associated objects and animal bones found in this area, all seem to point towards a cult function for this part of the settlement.[191] The third century A.D. temple at Lamyatt Beacon, Somerset, yielded eight possible miniature spearheads amongst other possible iron miniature spears (**3.10, fig. 3.36**). They are larger than those from Baâlons-Bouvellmont and of a much finer construction.[192] A small late Roman circular shrine at Bancroft, constructed after A.D. 330, included a central pit containing coins, and 18 miniature iron spearheads.[193] The shrine was a crude construction, erected after the rest of the site had been abandoned. It was likely a rural shrine connected to a nearby villa. In southern France, the natural sanctuary at Lachau (Drôme) has produced a group of iron models which include at least one possible miniature spearhead (**7.2.1, fig. 7.3**) with a long tang instead of a socket, though it is also possible that this object is miniature drill bit. Finally, the material from the partially excavated sanctuary at Karden (Rheinland-Pfalz) included five miniature spearheads made of lead all of which were between 40 and 50 mm in length.[194] Two seem to have been deposited together, and at least one was found in a miniature ceramic vessel (**6.1**). Apart from the fact that they are in lead, the Karden model spearheads resemble the models from Baâlons-Bouvellmont quite closely.

As reproductions of actual spearheads, the finds from all of these sites are fairly realistic, copying leaf shaped and triangular spearheads relatively accurately if in a simplistic manner. This same basic spearhead type was used by both Romans and non-Romans, so very little can be said about the 'ethnic identity' of the

188 Poux et al. 2002: 69-70. The site is dated from the end of the second century B.C. and was destroyed between 80 and 20 B.C. It was violently destroyed, probably in association with the arrival of the Romans. The site has also produced a number of miniature *fibulae* as well as small bronze rings and ceramic jetons which may be substitutes for coins.

189 Stead and Rigby 1986: 149, feature A 13.

190 Stead and Rigby 1986: 149 and 139, nos. 450 (L. 66 mm) and 456 (L. 96 mm), in a fourth century well (feature A68). The bronze model spear is Nr. 380 in the finds catalogue, where they are merely described as a probable ritual deposit. Aldhouse-Green (2002: 11) more definitively describes them as miniatures.

191 The situation seems very similar to the oppidum sites at Baalons-Bouvellmont and Entremont in the Champagne Ardennes. The site report's conclusion of 'possible ritual activity' is probably overly cautious.

192 Leech 1986: 47-58. These are all fairly large, as are the complete miniature spears in iron. These latter are conceivably the heads of *pila* or balista bolts. See below.

193 Skinner 1997: 339-341; Williams 1994: 107-110.

194 Nickel 1999: 152, pl. 80.

miniatures based on their form alone.[195] The fact that some of the miniatures from Baâlons-Bouvellmont and Acy-Romance contained traces of wood in their sockets indicates that they once had a wooden haft. If this is so, I would propose that cones such as those found at Baâlons-Bouvellmont are actually ferrules – the iron shoes that protected the butt end of life-sized spears.[196] The fact that the number of cones found at Baâlons-Bouvellmont is almost half the number of spearheads seems to support this theory.

Alain Ferdière has noted that the miniature spearheads from Baâlons-Bouvellmont are remarkably similar to Roman period iron plough shares, and suggests that they might be copies of this tool rather than spearheads.[197] This explanation would account for all three types of model found at Baâlon-Bouvellmont, including the scalene triangles. The conical and spearhead types are fairly similar to plough shares mounted onto the plough a shaft-like bar that was pushed through the earth in the middle of the plough. The triangles resemble a different type that was generally pulled behind the main body of the plough on a long wooden or iron beam.[198] This new interpretation is particularly interesting, and cannot be dismissed out of hand. It is perhaps questionable, however, why ploughshares alone are found in these deposits, and not other miniature objects related to working the land. Moreover, one must also ask why three individual ploughshare types are present on a single site, and if the presence of real spearheads and complete miniature spears on other sites is not also significant.

3.9.2. The Functionality of the Miniature Spearheads.

Apart from the smaller finds at Bâalons-Bouvellmont, which cannot be anything other than tiny models, the main problem concerning miniature votive spearheads is the question of functionality. It is not clear whether these objects are all miniature representations of spearheads, or the blades of functional projectile weapons, such as arrows or small javelins. The better made specimens, such as those from Lamyatt Beacon or Bancroft, may well have been functional.

Though little is known about Iron Age arrowheads, examples from the oppida sites at Alésia and Stradonice are very different from the objects found at Baâlons-Bouvellmont and elsewhere. They are more regular triangles, with barbs, and long thin tubular sockets.[199] Some help is to be found in Deschler-Erb's catalogue of Roman weapons from first century contexts at Augusta Raurica. While spears, javelins, ballista bolts and arrows from this site all have the same basic leaf-shaped heads, Deschler-Erb notes that functional arrowheads have a maximum weight limit around 12g.[200] The nine objects he identified as arrowheads measure

195 "It is impossible to distinguish between Roman spearheads and those of the Roman's adversaries" (Bishop and Coulston 1993: 53.)

196 Bishop and Coulston 1993: 52-53 and 68-69.

197 Pers. Comm. 22.06.2007;

198 On ploughshares see Ferdière 1988: 29-35.

199 Dechelette 1914: 1154, fig. 483; Brunaux and Lambot 1987: 95-96, fig. 155.

200 Deschler-Erb 1999: 22.

between 51 and 75 mm in length; longer than the Bâalons-Bouvellmont examples, but significantly smaller than those from British sites. Their form, however, is completely different: they are hollow conical prisms at the base, and become solid rectangular prisms towards the point. Other Iron Age arrowheads are known to have tangs rather than sockets.[201]

Spear and javelin heads from Augusta Raurica are closer in form to the larger models, but are much larger with the smallest examples being around 12 cm long. Deschler-Erb argued that spearheads longer than 21 cm are unlikely to be javelins, but probably belonged to thrusting weapons; especially the Roman *hasta*.[202] Manning identified a variety of functional spearheads and projectile points between about 5 and 15 cm in length. Some specimens, which he identified as bolt-heads, had the same unbalanced profile as the supposed models, and ranged from 35 to 90 mm in length.[203] The majority of the finds studied by Manning were chance finds from the 19th century collection of Henry Durden. Much of Durden's collection comes from the Iron Age oppidum and Roman fort at Hod Hill. Is it possible that Hod Hill also included a deposit of model spearheads? The model shield from this site has already been described. A definitive solution to this problem of functionality is not likely to arise until a systematic study of both Celtic and Roman projectile points has been undertaken. At Mouzon and Baâlons-Bouvellmont, other model weapons were also found, and this supports the identification of the spearheads from these sites as models.

3.9.3 Conclusions on Miniature Spearheads.

If they are indeed miniatures, then the spearheads from the sites discussed above possess all the elements appropriate to the substitutional theory of miniature votive offerings. The finds from Baâlons-Bouvellmont and Acy-Romance are from late Iron Age and early Roman sites, where past traditions of dedicating life-sized weapons are known. They were found in large numbers in single and obviously cult contexts. The excavator of Acy-Romance, Bernard Lambot, has proposed that the model spearheads were the symbolic offerings of rank and file Iron Age warriors, who would not have used swords in combat. Simultaneously, he sees the miniature arms as substitute for the heroic deeds of past, and not as arms taken from defeated enemies.[204] The large deposit of the spearheads at Acy-Romance in a single pit and in a large ceramic vessel, or the dedications at Baâlons-Bouvellmont in two deposits, suggest a rituals performed once, or over a very short period of time. This speaks against Lambot's idea of a personal religious act, and more for a communal or elite level dedication.

The finds from Bancroft, Lamyatt-Beacon and Baldock are all from late antique contexts, for which the theory of miniatures as substitutes is not really plausible.

201 Manning 1985: 175.

202 Deschler-Erb 1999: 21.

203 Manning 1985: 176-177, plate 85.

204 Lambot 2003: 52.

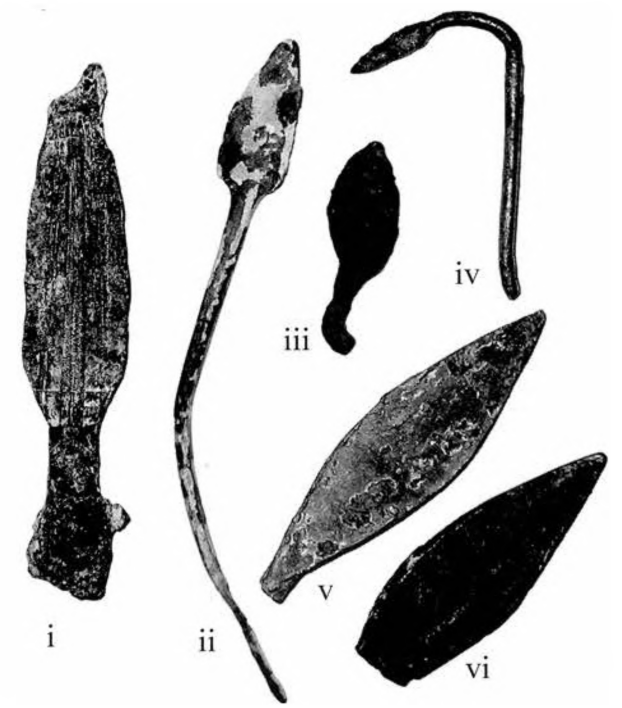

Fig. 3.32. Complete Miniature Spears.
i) Chateau-Porcien, lead; ii-vi) Baâlons-Bouvellmont. All bronze, except i which is lead and iii which is iron. All 1:1. (Photos by the author, Musée de l'Ardenne).

Since the temples at Lamyatt-Beacon and Bancroft were actually founded in the late antique, we can rule out the possibility that these finds were carried over from an earlier phase. We shall soon see that there are also a number of complete model spears from late antique British sites. If we assume that these objects are models rather than parts of functional javelins, then we must seek a different explanation. Unlike swords and shields, spears could be used as hunting weapons as well as in battle. They are also an attribute of the god Mars. Rather than seeing late miniature spears as substitutions for Iron Age offerings of war booty, it is possible that they represent hunting weapons, or are attributes of a particular god.

3.10. Complete Miniature Spears

Five representations of entire spears, including both the haft and the blade, were found in the topsoil at Baâlons-Bouvellmont (**fig. 3.32.ii-iv**).[205] Though out of context, they seem to support the idea that the miniature spearheads from this site are indeed ritual models. The two most complete specimens are both bronze, and consist of a thin pieces of bronze wire with one end hammered into a leaf-shaped blade. Both are bent, and the haft of one (**fig. 3.32.iv**) is broken. The complete example is about 90 mm long. A similar, though very fragmentary iron example was also found (**fig. 3.32.iii**). Two large leaf shaped spearheads (**fig. 3.32.v-vi**) found at Bâalons-Bouvellmont are of much higher quality than the small iron examples discussed above. It is unclear whether they had wooden or metal hafts, as they are broken at the base and socket. A similar lead spearhead was found at Château-Porcien, not far from Baâlons-Bouvellmont (**fig. 3.32.i**). Very little has

205 Squevin 1992: 140, fig. 2.5 and 2.9.

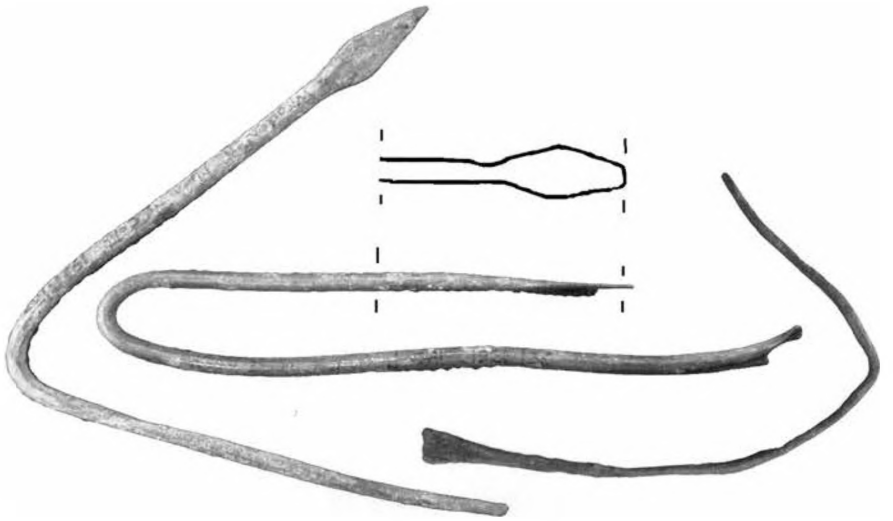

Fig. 3.33. Some Examples of Complete Miniature Spears from Woodeaton. Bronze, All 1:1. (Photos by the author. Ashmolean Museum).

been published about this *vicus*, but it seems to have included a Romano-Celtic temple.[206] One side of the 72 mm long spearhead is decorated with a central ridge, which is flanked by two diagonally running pairs of lines. On the other side of the blade only a central ridge is present. This central ridge is well known on life-sized spearheads from the early Iron Age.[207] Again, one might suspect that this object originally had a wooden haft, but the socket is too badly damaged to be sure. All three of these spearheads would have looked disproportionately large mounted on either a wooden or metal haft.

Complete miniature spears are best known from temple sites in Britain. Some 19 examples have been identified amongst the numerous metal objects found in the temple site at Woodeaton in Oxfordshire (**fig. 3.33**).[208] They were all crudely made by cutting out sections of bronze wire and hammering one end into a flat blade. The Woodeaton miniature spears vary greatly in length between 110 and 370 mm. The hafts are mostly circular in cross-section, though a few are square and one is twisted. The butt ends have usually been crudely clipped or broken, with no attempt to round them off or depict the iron ferrule. Most have been intentionally bent. The crude manufacture of the spears, and their ritual mutilation both show that we are dealing with votive models rather than the lost spears of bronze statuettes. Sadly, none of Woodeaton's model spears were found in a stratified context. They were purchased or donated to the Ashmolean Museum

206 On the temple see *Gallia* 31.394-395 (1973, Frézouls). On the site in general see Neiss 1994.

207 Brunaux and Lambot 1987: 91-94.

208 Bagnall Smith 1998: 152, no. 2.3-10; Kirk 1949: 40-41, nos. 6-11. Ashmolean Museum, inv. nos. 1886-1908 R17 Woodeaton, 1886-1908 R132 Woodeaton, 1935.429 Woodeaton, and R.17 Woodeaton. Kirk 1949: 40, no. 1937.816 is indeed a peg rather than a model spear as the Kirk herself suggests.

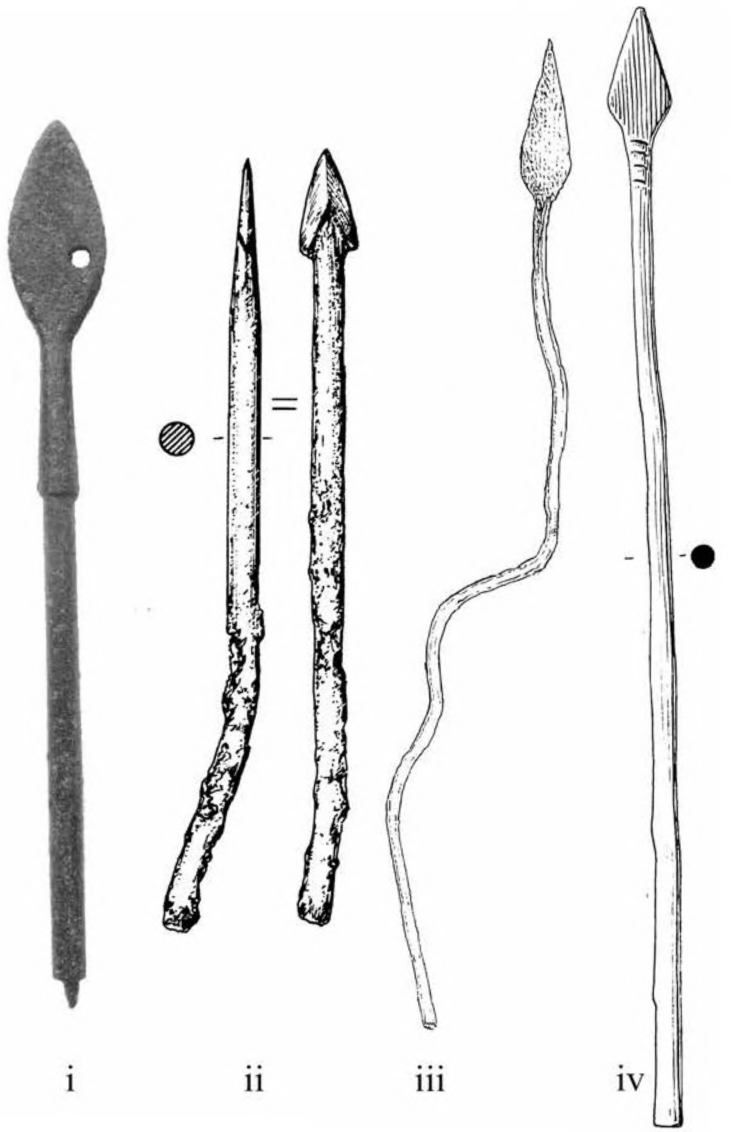

Fig. 3.34. Complete Miniature Spears in Bronze. i) Great Walsingham (from Bagnall Smith 1999: plate 6D); ii) Ihn, Saarland (from Miron 1994: pl. 66.8.); iii) Lydney Park (from Bathhurts 1879: pl. 25.10); iv) Baldock (from Stead 1986: no. 380) All 1:1.

from various local collectors in the early 20th century. The site itself was in use from the late Iron Age to mid fourth century A.D.

A perfectly straight 150 mm long bronze model spear with a cleanly worked butt end was found in the filling of a fourth century A.D. well at Baldock (**fig. 3.34.iv**). The same context yielded a fragment of cast bronze, which must have

come from the clothing or hair of a statuette.[209] The spear has several incised lines near the base of the blade, which probably represent the end of the metal socket. Another single bronze spear was found in the early 19th century explorations of the temple complex at Lydney Park in Gloucestershire, a large temple site is now thought to have been founded in the mid third century A.D. This miniature spear is 135 mm long, but badly bent. The original identification of this object as a *stylus* is obviously incorrect.[210] Finally, there is a 116 mm long bronze spear from the supposed temple site at Great Walsingham in Norfolk.[211] The join between blade and the long socket is clearly marked. The leaf-shaped blade has been holed on one side. The haft terminates in a peg at the butt end, which strongly suggests that the spear was part of a statuette, rather than a free-standing votive model, with the peg fitting into a basis. A 98 mm long bronze spear from the spring sanctuary at Ihn (Saarland, Germany), has been confidently identified by the excavators as the fragment of a statuette (**fig. 3.34.ii**).[212] Of course, the interpretation of this piece is just as ambiguous as the Baldock and Lydney Park examples, but in all cases it seems just as likely that these spears are from statuettes as being isolated votive models.

Martin Henig has identified 13 complete model spears of similar proportions from the Uley shrines in Gloucestershire. Apart from one silver specimen, all are made of iron rather than bronze, and all are from stratified archaeological contexts.[213] Some of the Uley miniature spears are badly damaged, but the more complete examples range from about 100 to 150 mm in length. The production technique essentially seems resembles that of the bronze Woodeaton spears, except that the material is iron. The hafts of six of the models have a twisted form; sometimes with a plain strip in the middle. All of the models are badly corroded, but one (**fig. 3.35.ii**) appears to have been intentionally bent.[214] Some of the spears identified by the excavators consist of simple lengths of iron wire with no spearhead, but that are otherwise similar to the hafts of the more complete examples (*e.g.* **fig. 3.35.iv**).

Two peculiarities from Uley should be noted. The first is a miniature spear in silver (**fig. 3.35.ii**) was significantly smaller than the others (L. 80 mm), but also has a haft twisted in two directions with a plain central section. The haft has been bent into a loop towards the blade. The blade itself is pierced in the middle, just like the larger bronze spear from Great Walsingham. It may originally have

209 Stead 1986: 136, no. 380. The statuette fragment is no. 382.

210 The first proper report on Lydney Park is that of Wheeler (1932) who dated its construction to the the middle of the fourth century A.D. This unlikely dating has been revised by Casey and Hoffmann (1999) to the middle of the third century. The model spear is described as a stylus by Bathhurst (1879: 57, no. 10, pl. 25.10). Henig (1993b: 131) compares it to the Uley specimens.

211 Bagnall-Smith 1999: 34, no. 25, pl. 6.

212 Miron 1994: 60, cat. no. 49, pl. 66.8.

213 Henig 1993b: 131-133.

214 Henig 1993b: 131, nos. 7, 9-13. The intentionally bent example is no. 7.

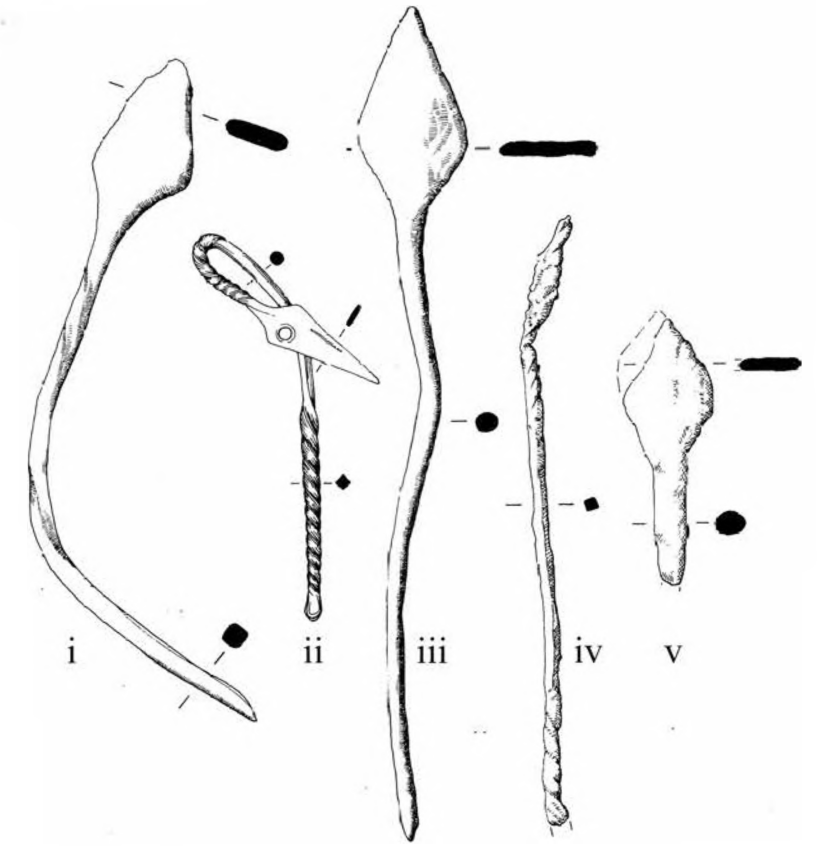

Fig. 3.35. Complete Miniature Spears from Uley.
All iron, except ii which is silver. All 1:1. (After Henig 1993b: 1).

been nailed to something, or have included a suspension ring.[215] It was found in a *stratum* dated between the early fifth and seventh century A.D. The second peculiatiry is a miniature iron spear, also with a holed blade, that was found lodged in the distal humerus of a goat.[216]

The most remarkable aspect of the miniature spears from Uley, however, is their availability of exact archaeological contexts. Surprisingly, all of these models were found in separate contexts, and in different buildings on the site. The strata in which they were found date from A.D. 310 to the medieval occupation of the site, with the best preserved specimens coming from strata dating to the early fourth to early fifth centuries. Only four of the spears were found in the

215 Henig (1993b: 131) suggests that this might imitate a pole-tip, where chains were hung from two holes at the base of a spear-like blade.

216 Henig (1993b: 131 no. 2) describes this as 'a ring-headed point' but the illustration makes one wonder if the actual head is not imbedded in the bone, and the ring is not actually formed by bending the metal wire backwards. In this case, the object might be more banally classed as a meat hook or skewer of sorts.

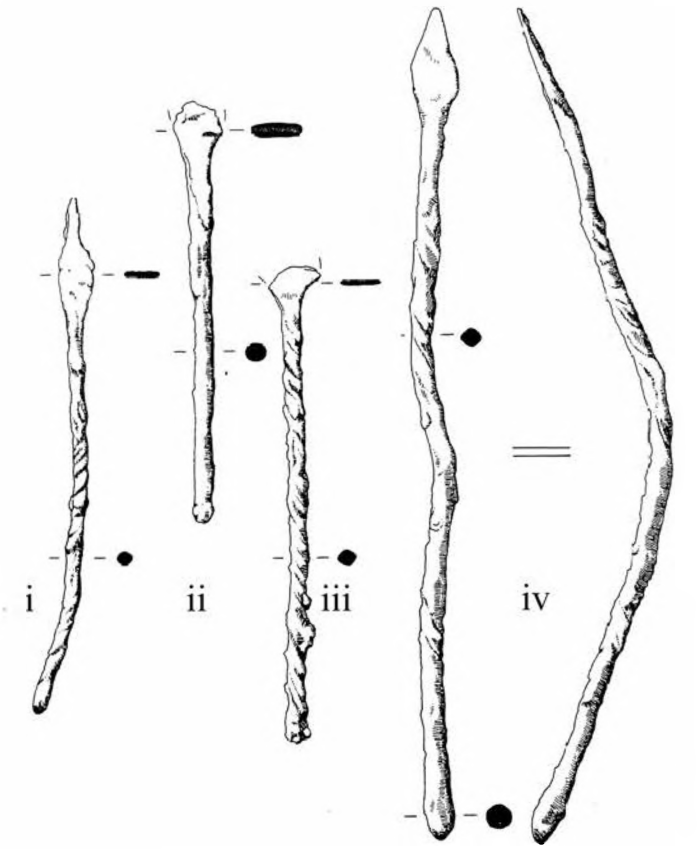

Fig. 3.36. Model Spears from Lamyat Beacon. Iron, 1:2. (After Leech 1986: fig. 29).

site's main temple (structure II).[217] Even allowing for contamination from earlier levels, it seems unlikely then that the models date much earlier than the early fourth century A.D. Their dispersion throughout the site, and their late dating is troubling, and we will return to both problems shortly.

Confirmation for the late dating of the Uley models is to be found in the temple site at Lamyatt Beacon in Somerset. Possible miniature spearheads from this site have already been mentioned above (**3.9.2**), though their miniature nature is questionable. Though the first excavations of the sanctuary yielded two Iron Age coins and a few early Iron Age sherds, there is no evidence for the occupation of the site until the late third century A.D., when a circular shrine was constructed. This shrine remained in use until the early fifth century.[218] The small finds include five miniature iron spears with twisted hafts that are virtually identical the Uley examples.[219] The two most complete miniature spears from Lamyatt Beacon (**fig.**

217 Henig 1993b: 131, nos. 6, 7, 9 and 12.

218 Leech 1986: 270.

219 Leech 1986: 303, nos. 43-46, fig. 39

3.36) are 12 and 21 cm long. The others specimens are too badly damaged to even guess at their original lengths. As with Uley, the site has also produced seven twisted iron lengths of wire, though these were not interpreted as fragmentary miniature spears.[220]

Finally, Martin Henig proposed that a single iron object found at Camerton, Somerset, is also a miniature spear. It is certainly similar to the other iron spears models, being 240 mm long, with two opposing twisted sections, and a plain section in the middle of the haft. It was found in a rubbish pit, cut into the side of a Bronze Age barrow. This context is once again late and dated from A.D. 250 to 380.[221] It is also significant that none of the structures at Camerton have been identified as a temple. The excavator tentatively identified this object as a skewer. A similar re-identification of iron objects (skewers and styli) as miniature spears is also known at the Roman villa at Hambeldon, in Buckinghamshire.[222] As no illustrations of these finds are available, further comment on the Hambeldon finds is not possible.

Individual finds of complete bronze spears, such as those from Baldock, Great Walsingham, and Camerton are more likely to come from bronze statuettes than to have been free standing votive models. Many bronze figurine types would have carried spears that are now lost. A 7.5 cm high bronze statuette of Mars from the Roman fort in Obersdorf in Bavaria, still holds a crude spear with a blade that is much too large for the haft.[223] The disproportionality of the weapon carried by this figurine is strikingly similar to that of the models. A 16.5 cm high statuette of Athena from the temple treasure found at Weißenburg also carries a silver spear which is not at all unlike some of the complete examples discussed above.[224] It is interesting to note that two bronze statuettes of Mars and one of Minerva were found at Lamyatt Beacon, both with upraised and empty hands that must have once held spears.[225] Such bronze statuettes are common votive offerings, and are frequently found at sanctuary sites. The late dating of these finds, and the non-cult context of the Camerton spear, seem to support the idea of a non-ritual function.

A far better case for substitutional votives can be made for the complete model spears from Woodeaton and Bâalons-Bouvellmont. Both sites produced several of these objects, and though the finds were out of context, and both sites have the necessary late Iron Age and early Roman occupation dates. The crudity of the Woodeaton spears makes it unlikely that they are from bronze statuettes. The ritual mutilation of these models and, at Baâlons-Bouvellmont, the presence of

220 Leech 1986: 304, nos. 66-73.

221 Henig 1993b: 131; Wedlake 1958: 78-79 and 272, no. 18, fig. 56.18.

222 Green (1976: 43 and 197) records eight model spears, but they are not mentioned in the publication (Cocks 1921) which she cites. She is probably referring to either the skewers or styli mentioned in passing by Cocks (1921:198).

223 Czysz et al. 1995: 493-494, fig. 190.

224 Kellner and Zahlhaas 1993: 32-33, cat. no. 14, pl. 10-12.

225 Leech 1986: nos. 3-5 and figs. 15 and 16.

miniature spearheads, also support the idea that these bronze models were early substitutional votive offerings.

A functional interpretation can be envisaged for the complete miniature iron spears from Uley, Lamyatt Beacon and Camerton. Twisted iron is a feature of various ancient iron implements, including candelabra and skewers. In the latter case it would have allowed the metal to transmit heat better, and would have prevented chunks of meat from sliding off. The longer model spears may well have served as small skewers for scraps of meat, functioning much like a modern kebab. This functional interpretation provides both for the scattered distribution at Uley, and the late dating of these objects at all three sites.

3.11. Conclusions and Summary: Miniature Arms and Armour

3.11.1. Summary

At the close of this lengthy chapter on model arms and armour, it is now possible to see if any major trends emerge, and ask to what extent the material matches the interpretations that are normally assumed for miniature weapons. Essentially, we can recognise one type of votive model use from the late Iron Age and early Roman periods, and have seen that a large number of supposed models weapons are not ritual objects at all, but necessitate a variety of different explanations. It is significant that the material examined does not include a single model that copies a distinctly Roman prototype and to which a ritual interpretation can be convincingly applied. All of the candidates proposed have been better explained as serving mundane functions. Before considering the functions of the ritual models uncovered, it is useful to review the conclusions reached above for individual groups (**table 5**), some of the problems encountered, and to briefly consider ritual model weapons from outside the study area.

3.11.2 Some Common Dangers of Interpreting Miniature Weapons

A number of pitfalls are common to several types of model weapon discussed in this chapter. Perhaps the first lesson that the assembled material teaches is that one must not be too quick to identify anything small and weapon-shaped as a miniature votive offering. Model swords, shields and complete bronze spears can all be the lost fragments of bronze figurines. Some miniature iron spearheads could be functional arrowheads or javelin heads, and could conceivably represent plough shares. Complete iron spears may actually be late Roman meat skewers, and numberous smaller weapon models could be elements of Roman dress, horse-gear or military equipment. The presence of all of these mundane and functional objects can be easily explained on both ritual and non-ritual sites. Positive indicators of a ritual votive model include crude manufacture, the absence of piercings, studs and other join marks, the presence of large numbers of very similar objects on the same site or context, and the intentional mutilation of the

Table 5. Summary of Miniature Weapons and their Interpretations.

Site or Find	Description	Dating	Explanation
Salisbury Hoard (3.2, fig. 3.1)	bronze shields	Late Iron Age (?)	Ritual models
Mouzon (3.3 figs. 3.3-6)	iron swords, shields, axes, spearheads	1st century A.D.	Ritual models (substitutes)
Blicquy (3.4, fig. 3.7)	swords, axe	50 B.C. to A.D. 50.	Ritual models (substitutes)
Hod Hill (3.5, fig. 3.9)	bronze shield	Iron Age.	Ritual model
Frilford (3.5, fig. 3.10)	sword and shield	Iron Age, *t.a.q.* late 1st century A.D.	Ritual models
Worth (3.5, fig. 3.11)	3 model shields	Iron Age, *t.a.q.* late 1st century A.D.	Ritual model
Garton Slack (3.5, fig. 3.12)	chalk shield	1st century B.C. to 1st century A.D.	Sculpture?
Breedon-on-the-Hill (3.5, fig. 3.13)	bronze shield	Iron Age?	Ritual model
Langley (3.5, fig. 3.15)	bronze shield	?	Statuette? Model?
Alcester (3.5, fig. 3.16)	bronze shield	Iron Age	Ritual model
Barmouth (3.5, fig. 3.17)	bronze shield	Iron Age	Ritual model
Chesters (3.5, fig. 3.18.i)	bronze sword	Iron Age	Ritual model?
Woodeaton (3.5, fig. 3.18.ii)	bronze sword	Roman	Ritual model? statuette fragment?
Fesques (3.5, 3.18.iii)	bronze sword	Iron Age	Functional, pendant
Dalheim (3.5, fig. 3.14)	bronze shield	?	Ritual model
Kirmington (3.5, fig. 3.20)	bronze shields	Iron Age	Ritual models
Kirmington (3.5, fig. 3.21)	*secutor* helmet, sword and arm	1st century A.D. or later	Functional, souvenirs
Argentomagus (3.5, fig. 3.21.i and ii)	sword with bone sheath and pierced shield	A.D. 50 – early 3rd century.	Functional, pocket knife and dress accessory (re-used as votive models?)
Various Sites (3.5, fig. 3.22. ii-vi)	swords with bone sheaths	1st century. A.D to 3rd century A.D.	Functional, pocket knives
Limousin various sites (3.6, fig. 3.23)	swords with bronze sheaths	Early 2nd century A.D.	Functional, pocket knives
Braifield (3.5, fig. 3.19)	miniature sword	Iron Age ?	modern?
Baâlons-Bouvellmont, Woodeaton, Titelberg, (3.7, fig. 3.24-25)	pierced shields	1st century A.D. and onwards	Functional, cosmetic items / dress accessories
Baâlons-Bouvellmont (3.9, fig. 3.30)	iron spearheads	Late Iron Age to Tiberius	Ritual models (substitutes)
Acy-Romance (3.9, fig. 3.31)	iron spearheads	80 B.C. to A.D. 40.	Ritual models (substitutes)
Corent (3.9)	iron spearheads	2nd century B.C. to 20 B.C.	Ritual models (substitutes)
Baldock, Bancroft, Lamyatt Beacon (3.9, fig. 3.30.iv)	iron spearheads	3rd century A.D	Ritual models? Functional arrowheads?
Baâlons-Bouvellmont, Château-Porcien (3.10, fig. 3.32)	complete spears in bronze and lead	?	Ritual models (substitutes)
Woodeaton (3.7, fig. 3.33)	complete bronze spears	Iron Age to 4th century A.D.	Ritual models (substitutes)
Great Walsingham, Lydney Park, Ihn, Baldock (3.9, fig. 3.34)	complete bronze spears	Various	Probably from bronze statuettes.
Uley (3.9, fig. 3.35)	complete iron spears	A.D. 310 to medieval period	Functional skewers
Lamyatt Beacon (3.9, fig. 3.36)	complete iron spears	Late 3rd century to early 5th century A.D.	Functional skewers

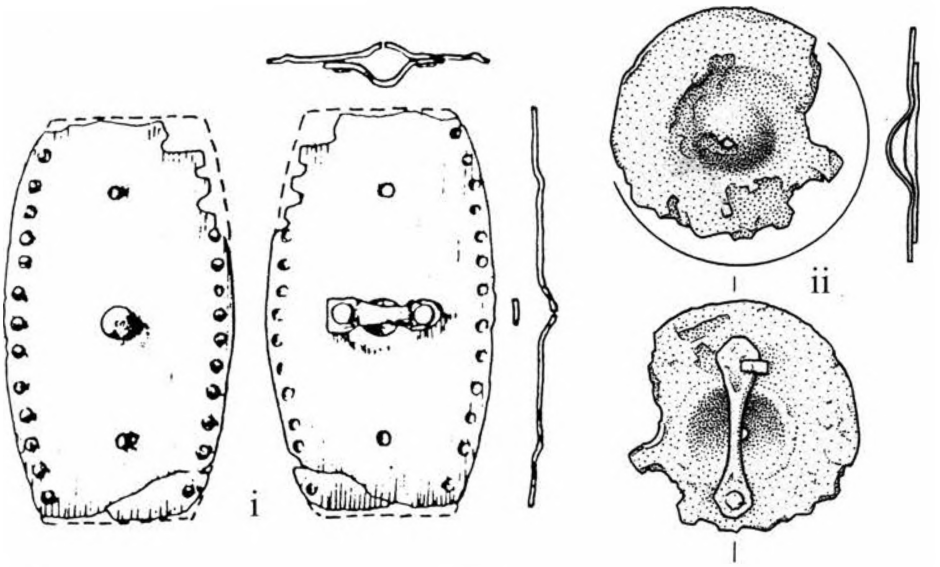

Fig. 3.36.i. Bronze Miniature Shields from Nowy Targ, Poland. (From Beilke-Voigt 1998: pl. 25.5); ii) Shield from a Merovingian Period Burial at Schützing, Germany (Reimann 1995: fig. 88). 1:1.

models. Naturally, a good archaeological context is the best evidence possible, but is all too seldom available.

3.11.3 Realism and Miniaturel Weapons

Model weapons, like other model types, have a great potential to contribute to our understanding of ancient *realia*, if only because they provide representations of lost organic components of their life-sized counterparts. For example, they reveal much about the shape of Iron Age shields, as demonstrated by the finds from Mouzon and Salisbury. Iron Age and Roman military equipment is usually found in pieces. Votive models can help to us to identify and reassemble these finds. Stead's recognition of the Iron Age shield bindings on the basis of the Salisbury shield models serves to highlight this potential. The distinction between Roman and non-Roman weapons is seldom as clear-cut as one might expect, and model weapons with well dated contexts may eventually serve to improve our definitions. Finds with absolutely no context at all are of little help. Two model shields purchased by the Römische-Germanisches Zentralmuseum in Mainz in the early 20th century could just as easily be Gallic, Italian or even eastern Germanic artefacts.[226] Furthermore, one must note that model weapons are often very schematic and crude representations. This fact is illustrated by the lack of proportions between the blades and grips of the swords from Mouzon and in

226 The *spina* of both models is marked by a raised ridge, and one has a round boss with two expanding flanges. Behn 1913: 7-8, fig. 4.

later toiletary sets. Arms and armour from dress accessories, such as the bone scabbards described by Béal and Feugère, or their cousins from Limousine, may intentionally include fantasy elements that were not present on the contemporary originals. Like sculpted representations, both ritual and functional model weapons can tell us a good deal about ancient military equipment, but the evidence must be treated with caution.

3.11.4 Miniature Arms and Armour Outside the Study Area

Before concluding on the ritual models of Rome's north-west provinces, it may be helpful to consider similar finds from other areas as well. Miniature armour and weapons have been found in Greek and Italian sanctuary sites, and traditions of model weapons are known in barbarian areas as well. It is not possible to do more than illustrate a few examples here, and one may hope that future studies will allow for more profitable comparisons.

Finds of miniature arms and armour are known from at least 28 sanctuary sites in the Greek world from the Archaic period onwards.[227] The models reproduce shields, corslets, greaves, helmets, spears, and arrowheads. It is interesting to note that no site seems to include model swords. The same sanctuaries have often produced finds of life-sized military equipment as well. Inscriptions on a few life-sized pieces of military equipment show that it was possible to dedicate both personal equipment, as well as items seized from enemies. A number of inscribed helmets from the sanctuary of Zeus at Olympia recall famous events and people of the Classical Greek world, but perhaps the most famous are those dedicated by Militiades and Hieron of Syracuse. The Greek votive models are generally well made, and there do not seem to be any large scale deposits as seen at Mouzon. It is amazing that no comprehensive study of this material and its context has ever been attempted. [228]

Finds of life-sized weapons in pre-Roman sanctuaries in Italy are surprisingly rare when compared to graves. Life-sized spearheads, javelin heads and arrowheads seem to be the most common type of functional weapon dedication, though the few known models reflect a wider range of military equipment. [229] The finds from sanctuary of the Genius Loci at Talamone, datable from the fourth to first centuries B.C., included miniature bronze representations of swords, shields, and a helmet.[230] A small (Dm. 12.5 cm), round, bronze shield found at Ascolano is inscribed P. VETTIVS C. L. BURRIA MAR(TI) D. D. – indicating a clear

227 For a list and discussion of the practice in the Greek world see Cooper 1996: I.70-73; Snodgrass 1974. For the Hellenistic period see Chaniotis 2005: 146-147, 233 and 235.

228 Snodgrass (1967: 100-101, and note 16) describes the finds from Olympia. For a more detailed list of weapon dedications at Olympia, including those of Hieron and Militiades, see Kunze 1967: 105-110.

229 *ThesCRA* I. 2d.C.24.378-379 (2004, Edlund-Berry).

230 Montelius: 1910: pl. 204-205; Sensi 1987: 16-18, figs. 20-22, 24, 29; *ThesCRA* I.378, no. 466. (2004, Edlund-Berry). The lack of a more detailed study of this material is indicative of the sort of regional bias that affects small finds in differing regions (See **1.8**).

votive function. A number of dates for the piece have been proposed, with Benelli arguing for the first century B.C.[231] The personal name in the inscription suggests, however, that in Italy as in Greece, the dedication of miniature votive weapons on a personal level was possible. I am not aware, however, of any imperial period dedications of either real or miniature arms in Roman period sanctuaries in Italy.

It should come as no surprise that actual weapons were dedicated at sanctuary sites and holy places in Germanic regions as well, though not, apparently, miniature representations.[232] The use of military equipment as a decorative motife in personal adornment in the Roman world has been discussed above (*i.e.* **3.7, 3.8**), but is very common in the Germanic world as well. The celebrated gold chain found at Szilágysomlyó (Hungary) in 1797 is perhaps the best example of this. The chain was probably worn around the waist, and the miniature pendants that dangled from it, which include both tools and weapons, likely served an amuletic function.[233] Miniature shields from the Przworsk and Wielbark cultures of eastern Germany and Poland have been studied in detail by Beilke-Voigt, and approach the form of some of the miniature shields discussed in this chapter quite closely (**fig. 3.36**). Unlike their counterparts in the study area, however, they stem exclusively from burials rather than sanctuaries. These model shields are similar in size to the Mouzon shields, share some of the same shapes, and are composed of both iron and bronze. Some have raised round bosses with handles mounted behind them. The surfaces of several are decorated with raised dots, which probably represent nails holding the bindings and bosses in place. The graves in which they are found date from the early Roman period to no later than A.D. 200. In spite of the lack of piercings and suspension loops, it is still possible that these shields were dress accessories, as at least one grave contained fragments of a small chain on which an accompanying shield may have been suspended, presumably using the grip behind the boss.[234] This tradition seems to have been carried into Western Europe following the collapse of the Roman Empire, as similar miniature shield amulets appear there in burials of the sixth and seventh centuries A.D. These include a small round shield from Schützing, Germany (**fig. 3.36.ii**). Much later, and geographically further removed, are the miniature weapon amulets of Viking Age Scandinavia. These artefacts from different periods and places in the Germanic world are mentioned simply to underline the danger of misinterpreting finds without archaeological contexts.[235]

3.11.5 Chronology and Distribution of Model Weapons

We may now turn to the purely ritual miniature objects which have been discussed in this chapter. All of the models with good archaeological contexts

231 Benelli 2002.

232 For large deposits of weapons in Scandinavia see Ilkjaer and Lønstrup 1982.

233 Beilke-Voigt 1994: 124-125, fig. 17; Capelle 2006. See also **8.8.4.**

234 Beilke-Voigt 1998: 45-48 Pls. 25-26.

235 Reimann 1995. On Viking pendants see Zeiten 1997.

(Salisbury, Mouzon, Blicquy, Baâlons-Bouvellmont, Acy-Romance) date from the first century B.C. to the end of the first century A.D. – that is, the very end of the Iron Age, or the early Roman period. Some of the finds did not have good contexts (*e.g.* the shields from Barmouth, Alcester, Chesters and Dalheim), but could be fairly confidently dated to the Iron Age based on their forms. This dating fits in nicely with the interpretation of ritual models as part of a transitional phase between the Iron Age and Roman periods. It is interesting to note that some of the miniatures, notably the Salisbury hoard and the spearheads from Acy-Romance, actually belong to the pre-Roman period, when the dedication of real weapons was still possible. This seems to confirm the idea the change to a different system of votive offerings was already underway before the actual arrival of the Roman invaders.[236]

Geographically, the sanctuaries with model weapons are limited to northern Gaul and Britain. This corresponds to the location of numerous well excavated sanctuaries with deposits of real Iron Age weapons, but to what extent it reflects actual distribution within the north-west provinces of the Roman Empire is questionable. The same area has a strong modern history of archaeological excavations and of recording small finds. The recent discoveries at the sanctuary of Tintingnac (Limousin) and the much older finds from La Tène itself demonstrate that the practice of dedicating weapons in the Iron Age extended much further. The same may be true for the dedication of models.

3.11.6 Model Arms and Armour as Reflections of an Iron Age Tradition

Apart from their early dating, a number of points confirm that votive models were used as substitutes for the Celtic practice of dedicating functional weapons. All of the model weapons described in this chapter must have been less expensive than their life-sized counterparts. Even the relatively well made shields from Salisbury cannot have equalled the expense of a real shield in terms of either monetary cost or required labour time. The main question is that of the quantity in which they were dedicated. Quantity is a hard factor to measure on the basis of archaeological finds, as sanctuaries and temples were probably routinely cleaned out both during and after antiquity. Multiple models were found in the Salisbury Hoard, and at Mouzon, Blicquy, Baâlons-Bouvellmont, Acy-Romance and Woodeaton. The large numbers of models at these sites seem to correspond directly to the mass finds of real weaponry in warrior sanctuaries.

It is more difficult to assess smaller groups and individual specimens, even from well excavated contexts. One might suspect that the small groups of model weapons the temples excavated at Frilford and Worth are representative of larger deposits that were removed in antiquity. Single finds with no context are even more difficult to assess. While there may well be temple sites at Hod Hill, Kirmington, Alcester, and Great Walsingham, we do not know if these models are parts of larger groups, or individual dedications. The fact that none of the

236 Bradley 1990: 189; Wellington 2001.

recently excavated temple sites have produced single examples seems to confirm that the dedication of large numbers of model weapons was the norm. Normal archaeological processes, such as removal in antiquity, may have reduced the number of surviving models in many cases. It should be noted that the initial excavations of the sanctuary at Mouzon only produced three model weapons.

The fact that a large number of very similar models in a single context were present in the Salisbury Hoard, at Mouzon, Baâlons-Bouvellmont, and Acy-Romance, seems to speak in favour of single ritual acts, rather than continuous deposition over an extended period of time. In the latter case, one would expect a more heterogeneous assortment of objects as well as multiple contexts on the sites. The shields from the Salisbury hoard are so similar that they were surely produced in the same workshop, if not by the same craftsman, and even the models from Mouzon and Baâlons-Bouvellmont and Woodeaton all seem to employ a limited set of production techniques as well. This impression of single ritual acts also corresponds to the periodic dedication of war booty in the Iron Age.

There is also evidence that the models were placed on display in the sanctuary, just as Iron Age war booty had been. This evidence takes the form of nail holes in the miniature shields. Some of the shields from Mouzon seem to have been attached a surface near the entrance of a *cella*, probably the cult building itself. The fact that no models were found near the other *cellae* on the site suggests that they were offered to a specific deity. The pile could easily have formed a small imitation of an Iron Age style trophy. The same is true of the miniature spears from Baâlons-Bouvellmont and Acy-Romance. Needless to say, none of the models would have been even half as impressive or prominent as the trophies of earlier periods.

The sanctuaries at Mouzon, Blicquy, Baâlons-Bouvellmont, Frilford, Acy-Romance, and Woodeaton all have Iron Age pre-cursors at which there is evidence for the dedication of life-sized weapons, thus enabling for this modification of an older practice. Though the accuracy of the forms reproduced by model weapons is often difficult to assess, they generally seem to copy Iron Age rather than Roman prototypes. Finally, some of the models from Mouzon, and the bronze spears from Woodeaton, had been intentionally damaged by bending or breaking, yet another trait of Iron Age votive deposition. In short, there is a very good case for the adaptation of an Iron Age tradition for some deposits of miniature weapons.

3.11.7 Votive Model Weapons in Ritual and Society

This brings us to the identity of the dedicators, and the function of model weapons in the realms of gods and men. It is generally assumed that the mass dedication of weapons was undertaken by entire communities or by the upper echelons of Iron Age society. Who was responsible for the dedication of miniature weapons? Though the cost of dedicating a very large number of miniature weapons may not have been beyond the means of a normal individual, the evidence points towards the survival of a communal type act. A group of miniature weapons

would have been just as expensive as dedicating a better made and more personalised individual votive offering. Lambot proposed that the spearheads from Acy-Romance represented the personal weapons of ordinary warriors, and the same could be true of the models from Mouzon, Woodeaton, and Baâlons-Bouvellmont and so on. The single contexts of these major finds, however, and the uncertainty that single weapon models were ever deposited elsewhere, speak strongly against the idea of continuous dedication by individuals at these sites. The lack of variation in the workmanship of the larger groups of models is yet another point against their being accumulations of numerous personal offerings. Finally, and perhaps most importantly, one would expect the tradition of miniature weapons to continue longer into the Roman period, in which the use of personalised votive offerings only increased over time.

The use of model arms and armour as later reflections of Iron Age practice can only be explained by considering the earlier ritual itself. Personal arms of Celtic warriors were sacrosanct, and symbols of both their personal prowess and social status. The consecration of such objects taken from defeated enemies marked a just repayment to the gods for the victory they had granted. Their public display in sanctuaries served not only to remind future generations of past victories, but also to demonstrate local ferocity to foreign visitors.[237]

It is highly significant that this study has not turn up a single miniature weapon from a grave. Only the miniature knives from Limousine come close, and they probably served a functional purpose. The absence of model weapons in graves contributes to our understanding of the sanctuary dedications of real weapons. Iron Age warriors were frequently buried with their personal arms, and one might expect to find models used when the deposition of actual weapons was economically or otherwise unfeasible. The fact that this did not happen further supports the idea that all actual weapons dedicated in sanctuaries stem from war booty rather than the personal armouries of individuals. The importance of the Celtic warrior's arms seems to have been so great that he was obliged to take them with him to the afterlife, and no substitute thereof would suffice.

As mentioned in the introduction to this chapter, Roman legal restrictions on possessing arms have been seen as another reason for the change to the dedication of model weapons. Evidence for such restrictions has been taken from legal sources (especially the commentaries on the *lex iulia de vi publica*) and recorded instances of the confiscation of arms by Roman officials. The latter evidence includes the confiscation of arms from rebellious Britons by A.D. 47 by the governor Publius Ostorius Scapula.[238] P.A. Brunt has convincingly shown, however, that the Roman practice of disarming its subjects was not universal, and that some weapons legally remained in private hands.[239] Brunt

237 Brunaux 2000: 186 and 205-208.

238 Tac. *Ann.* 12.31.2.

239 Brunt 1975. There is even good evidence that arms were available in Roman Gaul (Brunt 1974:264-265).

noted various exceptions made by Roman law, which include the possession of weapons for the purpose of hunting and trade. The true purpose of these laws seems to have been to prevent large accumulations of weaponry that might be used in rebellions and uprisings. For example, during the uprising of the Aedui and Treveri during the reign of Tiberius, Tacitus records that the weapons distributed to young men participating in the uprising were *arma occulta fabricata* – weapons made in secret.[240] The enormous arsenal of weapons that belonged to a Celtic sanctuary might conceivably have been seen as dangerous and undesirable by the Roman authorities. While an individual could probably legally own certain weapons that he might dedicate to the gods, the build-up of these weapons within the sanctuary would not have been acceptable. In this respect, the fact that miniature weapons, like mutilated weapons, were not usable may have had a practical signigicance. Both Iron Age and Roman societies incorporated large numbers of slaves and other lower classes who might be prone to rise up. A sanctuary filled with functional weaponry would have been dangerous in the wrong hands.

Of course, the most important questions about all votive offerings are those of function and meaning. Miranda Green proposed that models were not so much substitutes, or offerings of lower value, but objects that were made ritually special because of their small size. She suggested that the miniaturisation of arms and armour should be seen comparable to the deliberate mutilation of life-sized offerings. Like twisted and bent weapons, model weapons cannot be put into use and thus belong to the spiritual realm.[241] This interpretation is certainly plausible for the miniature shields of the Salisbury Hoard, which are part of a relatively high value deposit. By extension, the stylistically similar model shields from Barmouth, Alcester, Hod Hill and Worth can be explained in the same way. The relatively high quality of these shields sets them apart from the massive deposits of crudely produced items such as those found at Mouzon. This interpretation also leaves more room for an explanation of the repairs which were performed on some of the Salisbury models.

In fact, Miranda Green's argument and the concept of models as cheaper substitutes are not incompatible. In the late Iron Age, well made models such as the Salisbury shields may have been produced as being proper to the divine realm, and perhaps also due to the absence of real war booty. Later, economic and social restrictions resulted in the production of cheaper models such as those seen at Mouzon. The process of Romanisation put an end to the inter-tribal warfare of the Iron Age, and perhaps also resulted in the purging of sanctuaries from their war-like *anathemata*. We might suspect that this resulted in a certain sensation of loss amongst the indigenous population. On top of the desecration of important monuments of past military victories, there may also have been an element of fear that the gods had been deprived of their just due.

240 Tac. *Ann.* 3.43.

241 Green 1987: 240-241.

Dedicating large numbers of model arms and armour served to alleviate this anxiety. As Roman ideas and practices were quickly adopted, and as personal votive offerings became the norm, such fears soon gave way and the need for miniaturised weapons ceased.

4. MINIATURE AXES

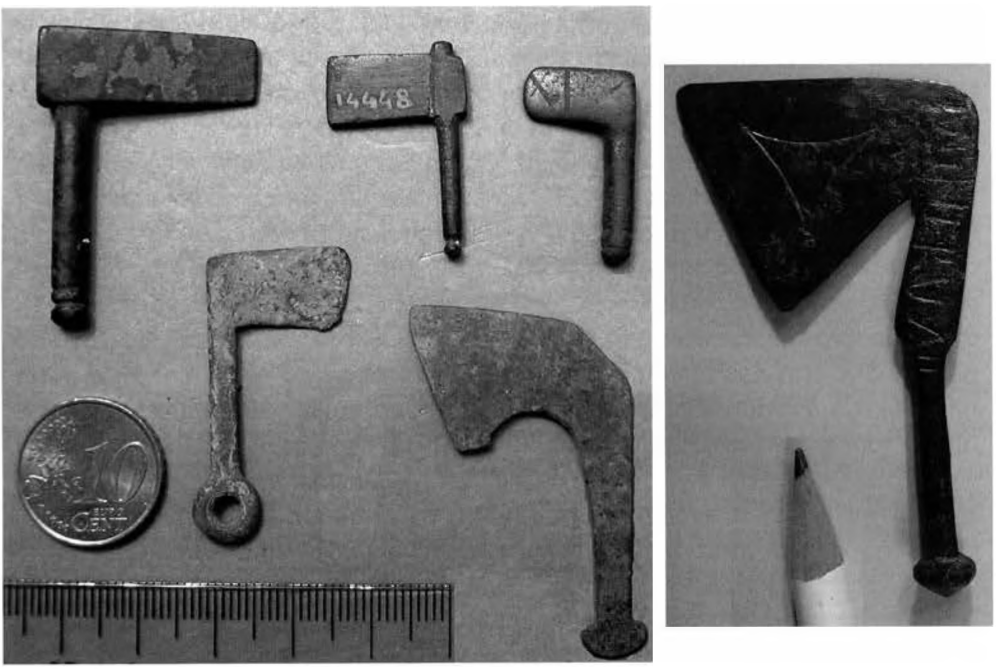

Fig. 4.1. Examples of Miniature Axes. On the left: FR16.i-ii, FR12, FR10, FR17. All 1:1. (Author, Musée des Antiquités Nationales). On the right: SU2.vii (Author, Historisches Museum, Bern).

4.1. Introduction

After wheels, miniature axes are probably the most common type of votive model object. (**fig. 4.1**). The first recorded find of miniature axes was in a hoard of figural bronzes from the Lindberg in Winterthur in 1709.[1] The next major discovery was also made in Switzerland, when six inscribed specimens turned up in excavations at the Romano-Celtic sanctuary at Allmendingen in 1824.[2] The inscriptions on the Allmendingen models should have made the votive nature of the miniature axes clear, but they do not seem to have been widely recognised as religious artefacts until Mommsen included them in his corpus of Helvetian inscriptions in 1854.[3] As late as 1850, the uninscribed examples found at Studen were interpreted as the tools of a veterinarian by Jahn.[4] Credit for first identification of a miniature axe as a votive object belongs to Charles Lyson, whose 1797 publication on the enormous Roman villa at Woodchester describes

1 Catalogue **SU31.i-vi.**

2 **SU1.**

3 Forrer 1948: 15; Mommsen 1854: 39, no. 211.

4 Jahn 1850: 47.

and illustrates a 'small bronze votive axe.'[5] By 1865, three miniature axes found in the Mayenne river were described as being "*indoubitablement des ex-votos.*"[6] Since the 19th century, the interpretation of miniature axes as votive offerings has been more or less universal, though they can occasionally be seen described as amulets, luck charms and toys in later publications. There is no consensus as to their exact religious function or significance.

Most miniature axes were cast in a single piece that includes both the haft and the axehead. They are almost always made of a copper alloy, though silver, iron and lead examples are also known. Stamped and incised decoration is very common on miniature axes, and a few, like those from Allmendingen, even bear dedicatory inscriptions. The majority of model axes are well under five cm long, though some of the Swiss examples can be as much as 15 to 20 cm in total length. Miniature axeheads are also known, but it is usually difficult to say whether they once incorporated wooden or metal hafts that have since been lost, or were complete as they are now.

As with the wheel models, dress accessories in the form of axes are also known, and their functional nature puts them outside the definition of a votive model. Miniature bronze socketed axes, particularly from southern Britain, are more problematic artefacts, being of both uncertain date and function. Before discussing these two unrelated groups of material, however, it is necessary to review the development and form of the life-sized ancient axe.

4.2. The History and Anatomy of Ancient Axes

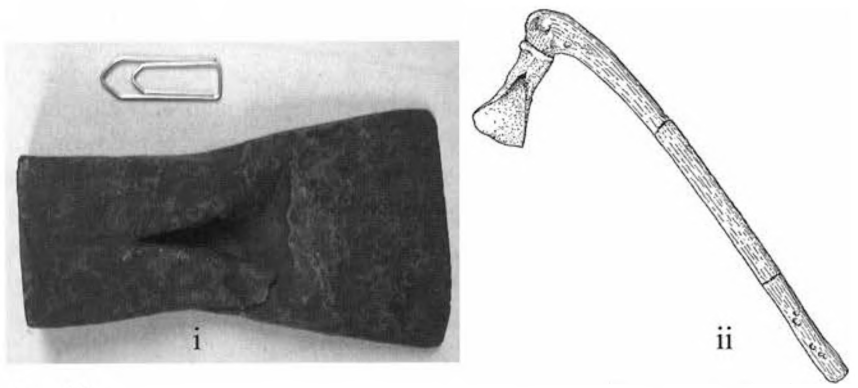

Fig. 4.2. i) Iron Socketed Axehead from the Engelhalbinsel in Bern (Author, Bern Historisches Museum); ii) Socketed Axe Reconstruction from La Tène (after Vouga 1923: pl. 43.5).

The changes in the forms of prehistoric axeheads, most famously set out by Montelius, are important chronological markers for the archaeologist. The

5 **BR60.** Lyson 1797: pl. 35 (*non-vidi*), cited by Neville 1854: 57 and Kirk 1949: 34, Roman p. The axe is presumably similar to **BR47.v**.

6 **FR 6.** Chedeau and De Sarcus 1865: 17.

axeheads of the Bronze Age are flat and roughly triangular. The back end of the blade would have been hammered into the wood of a curved haft, with the join being reinforced by cords running around both blade and haft. Axeheads soon developed ridges and flanges for increased stability. By the end of the Bronze Age, the flanges had curved around completely to form circular sockets into which the wooden haft could be inserted. A loop was then added to the top of the new socketed axeheads through which the supporting cords could be threaded. Surprisingly little is known about the chronology and form of axes from the Hallstatt and La Tène periods, but it seems that iron socketed axes were still the most common form of axe even in the late Iron Age (**fig. 4.1.**) Though shaft-hole axes and other shafted tools are known as early as the Neolithic, this mounting technique did not come into widespread use in north-western Europe until the very end of the Iron Age or even the Roman period.[7]

To describe both the life-sized and miniature axes properly it is necessary to establish a consistent terminology (see **fig 4.3**). In so doing, I have employed combination of the terms used by Manning, modern axe manufacturers and adaptations of the French and German terms of Duvauchelle and Pietsch.[8] The hole where the wooden *haft* ran through the blade is referred to as the *eye (Schaftloch/ oeil)*, and it is sometimes flanked by four *lugs* (*Schaftlochlappen/oeillères*) which provide additional stability. The top and bottom profiles of the axes are referred

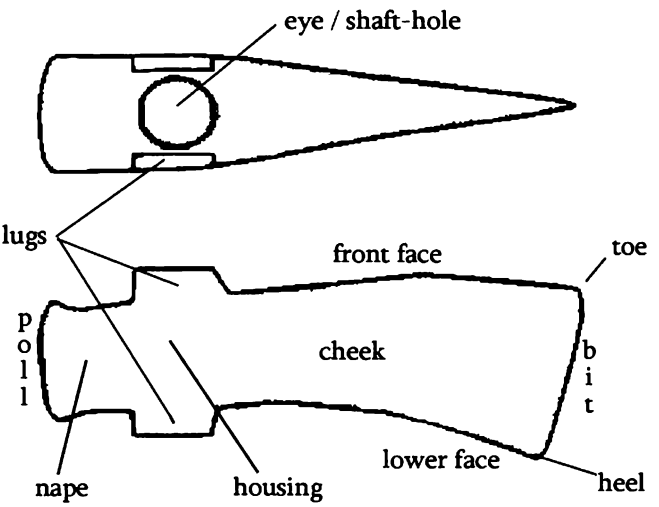

Fig. 4.3 The Anatomy of a Shaft Hole Axe.

7 On the development of the axe in general, and the paucity of Iron Age examples see Hoops *RGA* 1.544-547 *s.v.* Axt (Driehaus, 1973) and Gerloff, Hansen and Oehler 1993: 41-76. For the introduction of the shaft hole axe in Britain see Manning and Saunders 1972: 280-282. The proposal that shaft hole axes are a late adaption in both Britain and the continent is supported by their absence amongst the finds in the late Iron Age oppida at Manching and Stradonice.

8 Pietsch 1983: 9, fig. 2; Duvauchelle 2005: 36, fig. 18.

to as the *upper face (Vorderflanke/dos)* and *lower face (Rückenflanke/face inférieure)* respectively. The cutting edge of the axe is called the *bit (Schneide/ tranchant)*. The top corner of the bit is known as the *toe*, and the bottom corner as the *heel*. The blunt edge of the axe behind the haft is commonly referred to as the *poll (Bahn/table)*. The side of the axe in front of the haft is called the *cheek (Seitenflanke/lame)* and the side behind it as the *nape (Nacken/nuque)*. The section of the blade through which the shaft runs is called the *housing (Haus/ paroi latérale de l'oeil)*.

As the incised decoration on the models is often found on one cheek alone, I have referred to the *right* and *left cheek* depending on which side the bit is facing. Thus the illustration above (**fig. 4.3.**) shows the 'right' side of an axe. The wooden *haft (Schaft/manche)* alternatively called the shaft, grip or handle, has seldom survived on life-sized ancient axes, but is depicted by most of the models. The models often include a globular termination at the bottom of the haft, which I refer to simply as a *knob*.

Shaft hole axes are undoubtedly the most commonly found Roman tool.[9] A variety of shapes and sizes seem to have been employed simultaneously, and there is a strong element of local variation between different regions. In general, the Roman axehead had a small round or oval eye, and was a regular triangle in horizontal cross-section. Though not a universal feature, rectangular lugs above and below the shaft hole are a common trait of Roman axes. The rare shaft hole axe blades of the Iron Age, and post-Roman axeheads are usually thicker around the eye, and have thinner blades with an irregular cross-section. This form allowed for a large and robust haft, and an overall lighter tool than the highly schematised Roman axes.[10]

Life size axes are one of the most common iron artefacts found on Roman sites. Attempts at a meaningful classification system of Roman axes have proved difficult, as a wide variety of forms were used simultaneously over the entire Roman period, and there is a good deal of regional variation.[11] Major typologies have been established based on axes in the British Museum by Manning, on those from Raetia, Noricum and Pannonia by Pohanka, from Avenches by Duvauchelle, and on the enormous hoard of metal-work pulled out of the Rhine at Neupotz by Künzl.[12] Pietsch's study of tools from the forts at Saalburg, Feldburg and

9 The 50 axeheads of the Neupotz make up the largest group of the 169 tools in the hoard (Künzl 1993: 347). The Roman forts at Saalburg, Feldberg and Zugmantel have produced 56 axes (Pietsch 1983:12, 86-88) and 21 are recorded from Avenches (Duvauchelle 2005: 35-40). Gaitzsch's (1980: 343-344, pls. 5-6) work on Roman iron tools did not discuss axes, but merely listed ten examples from Pompeii.

10 Pietsch 1983: 10-13.

11 Pietsch 1983: 13. On regional variation, one notes that the typology of Pohanka (1986: 230, fig. 24) includes several types (nos. 1 and 3) that are not recorded outside of Austria. None of the British examples recorded by Manning (1985: 14) included the lugs which are common on continental axeheads.

12 Manning 1985; Pohanka 1986; Duvauchelle 2005, and Künzl 1993.

Zugmantel avoided any attempt at a typology of axes, but did record a number of useful traits.[13] A concordance of these typologies is not necessary here, but they are referred to below in reference to the individual types of miniature axes.

The main function of an axe in the Roman world depended on its size. Large axes would have been used primarily for felling trees and splitting logs, while smaller axes could have been employed for woodworking and carpentry. The various secondary functions of axes as weapons, symbols and implements of sacrifice will be discussed shortly (**4.12**).

4.3. Miniature Socketed Axes

It will be recalled that most of the socketed axes from the Salisbury hoard were small tinned bronze axes of a non-functional type that are usually dated to the late Bronze Age. (**3.2**). These Bronze Age models are something of an enigma, which have from time to time been considered a sort of primitive currency.[14] But two truly miniature socketed axes were also recorded in the Salisbury hoard. The details of these two artefacts are unavailable, but they belong to a fairly well documented group of tiny socketed axes, most of which range between 16 and 25 mm in length.

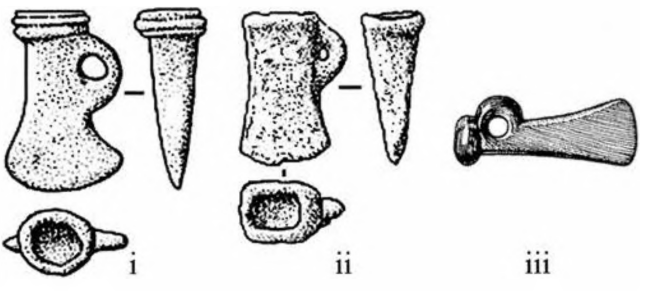

Fig. 4.4. Miniature Socketed Axes. i-ii) Lakenheath, Suffolk; ii) Roundway, Wiltshire; iii) Arras, Yorkshire. All bronze, 1:1. (i-ii: After Robinson 1995: figs. 1.3-4 and iii: Greenwell 1906: fig. 57)

Though once thought to be contemporaries of the tinned socketed axe models (*i.e.* late Bronze Age), Robinson has recently proposed that the tiny socketed axes were actually produced in the late Iron Age, or even the early Roman period.[15] The majority of the examples known to Robinson were from Wiltshire, but he rightly acknowledged that this concentration was fortuitous, as examples have since turned up in other parts of southern Britain.[16] Most of the 36 examples

13 Pietsch 1983: 12-14.

14 Stead 1998: 113-114; Warmenbol 2001: 617; Briard 1965: 262-267; Rivallain 2001.

15 Robinson 1995: 60-61.

16 Robinson 1995: 60. More recent finds of miniature socketed axes recorded by the Portable Antiquities Scheme are: Alciston, East Sussex (Portable Antiquities Scheme no. SUSS-4551A0), Alton, Wiltshire (Portable Antiquities Scheme no. WILT-9E5024), Chishill, Cambridgeshire (Portable Antiquities Scheme no. BH-E4E401), Kings Worthy, Hampshire (Portable Antiquities Scheme no. HAMP-6E6961.), Freckenham, Suffolk (Portable Antiquities Scheme no. SF698), Isleham, Cambridgeshire (Portable Antiquities Scheme no. SF-632655), Leiston, Suffolk, (Portable Antiquities Scheme No. SF-EBA1B6), Minster Lovell, Oxfordshire (?) (Portable Antiquities Scheme No. WMID3148), Parham, Suffolk. (Portable Antiquities Scheme no. SF11051.), Quarley,

known to Robinson were without archaeological contexts, though all had been found in association with late Iron Age and Roman material, or in fields where Roman sites are known.[17] Multiple finds from the same location or field also seem to be common.[18] The only miniature socketed axes with proper archaeological contexts are the two from the Salisbury hoard, and one from a late Iron Age burial in Arras, Yorkshire that was excavated in 1815 (**fig. 4.4.iii**).[19] An example from Lakenheath, Suffolk, seems to have been found in association with a miniature shafted axe, but no further details are available.[20]

The 25 mm long specimen from the burial at Arras is said to have been found connected to a glass bead by a pin, and was initially thought to have been part of an earring.[21] It seems more likely that the pin was part of a fibula, like the fibula with a wheel pendant found at Stradonice (see **2.2, fig. 2.3**). Another 13 mm long bronze socketed axe with a thin gold ring running through the loop was recently found by a metal detectorist in Calne, Wiltshire. An analysis of the gold content of the ring was thought to indicate a Roman date.[22] While the late dating of the miniature socketed axes is perhaps still open to debate, the evidence available seems to suggest that they were chiefly intended as wearable amulets rather than votive offerings. This point leads us nicely into the topic of axe-shaped dress accessories.

4.4 Axe-shaped Dress Accessories

Roman period dress accessories in the form of miniature axes are quite common, but whether they held the same symbolic value as the votive miniatures is unclear. Bone and metal hair pins with axehead terminals are probably the most common functional dress accessories to incorporate the axe motif. They are often quite short, but can be easily recognised by the small size of the axehead in relation to the long thin haft, which always terminate in a point. Such pins

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Hampshire. (Portable Antiquities Scheme no. HAMP-BF5044), Saham Toney, Norfolk (Portable Antiquities Scheme no. SF-838F44.), Winterbourne Bassett, Wiltshire (Portable Antiquities Scheme no. SUR-6194D4).

17 Robinson 1995: 60.

18 Robinson 1995: 68.

19 Robinson 1995: 62, no. 1; Kirk 1949: Iron Age a. Robinson (1995: 62, no. 2) also recorded a specimen from Long Wittenham, which is said to have been found with early Iron Age pottery. This object has no socket, and is curved at the back of the blade to form a loop. In this respect it is more like a pendant than the other miniature socketed axes.

20 **BR32,** Robinson 1995: 62 no. 3. Now in the Bury St. Edmonds Museum (Acc. 1981.242). One wonders if this is not actually a confusion for Lackford, Suffolk, where rescue excavations at Mill Heath uncovered features and finds suggesting a Roman sanctuary, with first century A.D. material and a 'votive axe.' See *Britannia* 13.370 (1970, Rankov). The Lackford piece has in turn been compared with the miniature socketed model found in Freckenham, Suffolk in 1999 (Portable Antiquities Scheme no. SF698)!

21 Greenwell 1906: 303, fig. 57.

22 Jackson 2001: 22-23. This piece is now in the possession of Wiltshire Heritage Museum, Devizes. Portable Antiquities Scheme no. PAS-C327D4.

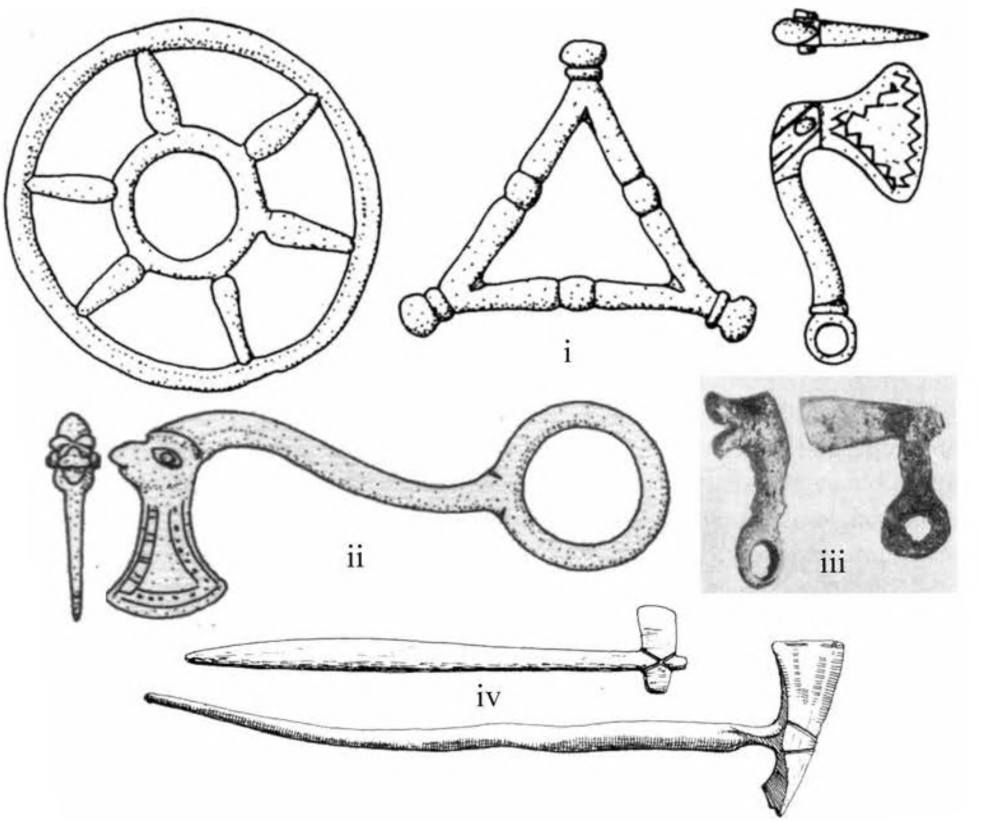

Fig 4.5. i) Three pendants (wheel, triangle, axe) from a necklace in Dürrnberg, Grave 72.2; ii) Axe pendant with mask decoration from a necklace in Dürrnberg Grave 77.3; iii) Miniature axe and carnyx pendants from a grave in Bouy; iv) bone hairpin from Richborough (above) and a bronze hairpin from Corbrige (below). All 1:1. (i-ii: after Penninger 1974: pls. 138 and 212; iii: after Gallia 35.406, fig. 18 (1977, Frézouls); iv: after Green 1981: fig. 2).

are best known from the German *limes* and military sites in Britain, such as the examples from Richborough and Corbridge (**fig. 4.5.iv**).[23] When the haft of a bronze hair pin is broken, it is potentially difficult to distinguish from a votive model. It is also possible the terminal and pin parts were made separately, and this may generate similar confusion in the case of an individual miniature axeheads. The tiny bronze axehead from Trier (**GE9**), and the bronze bearded axe from Straubing (**GE7**) are more likely to have been such hair pins than votives. The specimen from Bad Cannstatt (**GE1**) was actually identified as a broken hair pin by the excavators, but its haft is significantly thicker than other specimens

23 Sites with hair pins in the form of axes include Richborough (Bush-Fox 1949: 146, nos. 195-196, pl. 53 and 132, no. 147, pl. 39); Corbridge (Kirk 1949: 33, Roman c); Niederberg, (ORL. 12 (1900, Dahm) pl. 7.9); Pfünz (ORL 14 (1901,Winkelmann) pl. 12.14-15); Lydney Park (Wheeler 1932: 92, fig. 22 and 83, fig. 1.61-62.) and Evreux (Fauduet 1992b: 148, nos. 1078-1080). For more hair pins see also Forrer 1948: 51-52.

from the upper Raetian *limes*, and for this reason is probably more comparable to the votive models.[24] A number of larger iron pins with twisted hafts and blades in the form of hammers and axes were identified by Forrer as votive offerings, but their pointed bases suggest a functional nature.[25] Given their size, perhaps they were used to fasten cloaks or clothing. Plate *fibulae* in the form of axes are less common, but like the hair pins, they seem to be most frequently found on Roman military sites.[26] It has been suggested that axe-shaped dress accessories are related to the cult of Sabazius, whose attributes include a double-axe and a hand. Hair pins with hand shaped terminals are equally common.[27]

As with wheels, miniature axe pendants are also known. Unlike wheel models, however, miniature axes require a suspension loop or piercing to be worn. Three of the six miniature axes from Lindberg (**SU31.i-iii**) have such loops at the base of the haft, but they were found together with three axes with plain hafts, and almost certainly come from a nearby Romano-Celtic temple. An Augustan period inhumation at Bouy in Marne, however, yielded a miniature axe pendant and a miniature carnyx (**fig. 4.5.iii**). These two bronze pendants were accompanied by others in the form of various animals, and it is clear that they formed a set that was worn together.[28]

More interesting still are two bronze axe pendants from the Celtic cemetery at Dürrnberg in Bavaria. The first came from the burial of a badly deformed girl aged seven to ten, whose grave contained more amulet-like objects than any other in the cemetery. The axe pendant was found in a line of pendants with which it must have been threaded together in a single necklace. On top of numerous glass and amber beads, as well as bronze and iron rings, the necklace also included a bronze triangular frame, and a miniature bronze wheel of six spokes (**fig. 4.5.i**).[29] The axe has a curved haft that terminates in a small circular suspension loop at the base. The end of the wooden haft is marked with a clear line, and the upper section is decorated with lines and two beads (eyes?). The edges of the triangular blade are decorated with zig-zagging lines. The second bronze axe pendant (**fig. 4.5.ii**) also comes from the burial of a child, six to twelve years old.[30] It has a curved haft that terminates in a large circular ring. The upper part of the haft is moulded in the form of a mask, with a prominent eyebrow ridge, a nose, and two oval eyes with round pupils. The edges of the blade are decorated with a double

24 ORL B 59 Cannstatt Pl. 8.50 (Barthel 1907: 28 no. 54).

25 Forrer 1948: 53-54 Pl. 10.2-3.

26 Examples of axe-shaped *fibulae*: Trier (Green 1984a: 327, no. AX10); Zugmantel (Green 1984a: 327, no. AX13); South Shields (Green 1978: 71, South Shields no. 17); and an unknown site in Kent (Kirk 1949: 33, Roman f, Ashmolean Museum 1927.607). Two more axe-shaped *fibulae* have also been seen by the author on display in the Rheinlandesmuseum, Bonn.

27 Hanel 2004.

28 *Gallia* 35.405-407 *s.v.* Bouy, La Voie de Vadenay (E. Frézouls, 1977); *CAG* 51/1. 78.7*.246-7 (2004, Chossenot). Found in 1975, tomb 9.

29 Pauli 1975: 15, fig. 3.28; Penninger 1974: Grave 71/3, 33-36 fig. 1 and pl. 138.27.

30 Pauli 1975: 15, fig. 5.9; Penninger 1974: Nr. 77/3.8.42-44, fig. 2, pls. 146.8 and 212.2.

border containing lines and dots. Both of these burials are firmly dated to the early La Tène phase of the cemetery (400-350 B.C.) In spite of this early date, the Dürrnberg pendants are eerily similar to a series of model axes commonly found in Switzerland that also copy pre-historic axes.

4.5. Miniature Votive Axes

With these axe-like objects dismissed, we may now turn to true model axes. Fairly little research has been dedicated exclusively to these finds. Kirk's publication of bronze finds from Woodeaton in 1949 included a list of about 50 objects that she saw as parallels to the four miniature axes found in the British temple.[31] Green's two catalogues of religious material in Roman Britain, and her study of Wheel symbolism, document axe models as well.[32] Both authors employed a very broad definition of a model axe, including objects with functional uses, such as hair pins and *fibulae*, together with the true model axes. Far less information is available on model axes from mainland Europe.[33] Forrer's 1948 monograph (*Votivbeilchen*) lists 43 axe models from Switzerland alone, but he does not seem to have known about the British and French examples. This book seems to have been largely ignored by later scholars.

The present work has managed to assemble a corpus of 217 model axes from the study area, as well as a few select examples from outside of it (see **Appendix**). While the catalogue excludes obvious hair pins and *fibulae*, suspect objects have generally been granted the benefit of the doubt. Every effort has been made to include as many illustrations and bibliographical references as possible.

4.6. A Typology of Miniature Axes

To better analyse this large body of material, and to provide guidelines for future discoveries, I have attempted to provide a typology based on the assembled corpus of votive axe models (**Appendix 1**). The defining criterion employed was the overall shape of the axeheads, which allowed for the consideration of both complete miniature axes (that include the haft) and the somewhat rarer separate miniature axeheads. The five main types that were identified, and a number of subtypes, are discussed below. This typology is by no means comprehensive, and 49 of the models (22.7%) cannot be convincingly assigned to any of the five types. In both the catalogue of model axes, and the typological discussion, the descriptive terminology outlined in section **4.2** is employed. The incised markings, distribution, chronology, and the relation between the models and real axes are discussed for each type, but these same points are revisited in later sections to consider the model axes in general.

31 Kirk 1949: 32-35.

32 Green 1976, 1978 and 1984: 327-328, catalogue AX.

33 The most notable exception being Fauduet 1983.

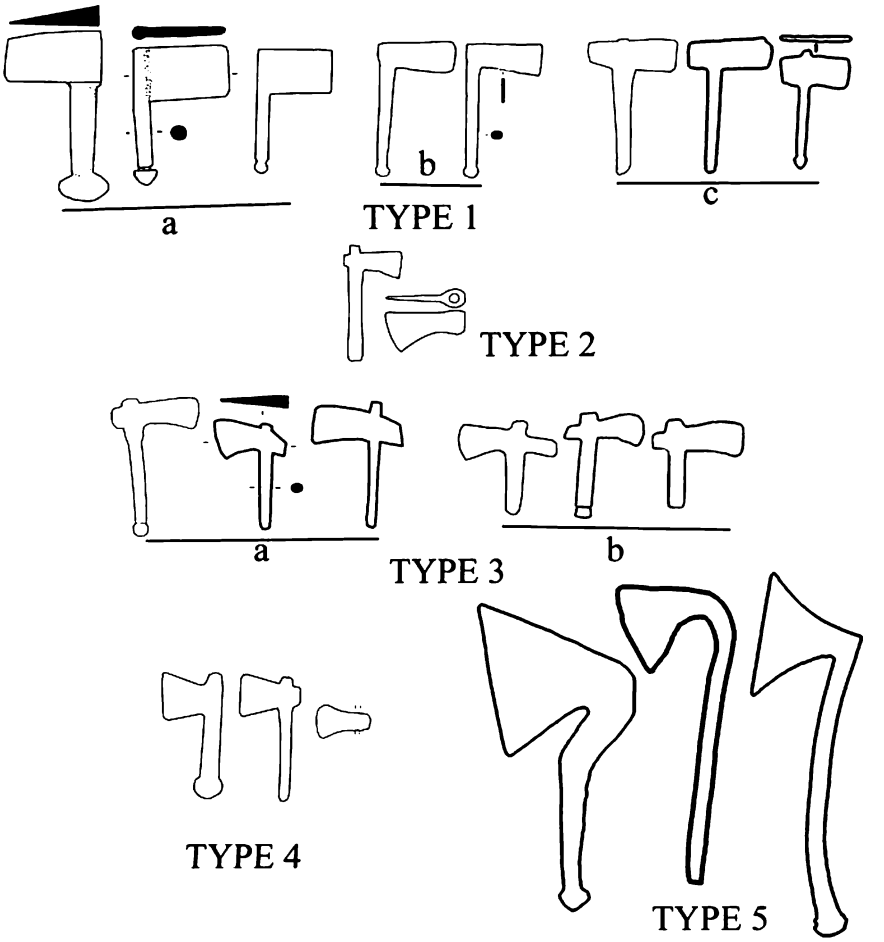

Fig. 4.6. Proposed Typology of Miniature Axes.
The outlines are roughly half the size of the originals on which they are based.

Type 1A. *The blades of this type are regular rectangles with no nape, and can be either* triangular or flat in cross section. All but one are complete model axes, the only exception being a lead axehead from Stoke Ash (**BR50**). The type 1A models range in length from *30 to 58 mm, with an average length of 37 mm. They might also be called the 'flag-shaped' axe models, because of their resemblance to a flag and mast. The cylindrical hafts* usually terminate in round knobs at the base, though plain endings are also known.[34] The haft protrudes only very slightly above the blade in a few in cases,[35] and in one instance engraved lines seem to denote the point where it should emerge (**FR12**). All of these models are bronze, apart from Fesques (**FR5**, silver), Stoke Ash (**BR50**, lead) and the two examples from Digeon (iron, **FR8.ii-iv**).[36]

34 Haft plain at the base are: **FR11, FR13, GE7, FR19, BR18, FR12.**

35 With the haft protruding above the blade: **BR1, GE7, FR15.ii, BR47.ii.**

36 Though described as silver in the site report, the Fesques (**FR5**) piece appears to have a suspiciously green patina in the colour plate.

Approximately two thirds of type 1A models (19 examples) have some kind of inscribed or stamped decoration. The ten undecorated specimens include a few damaged or corroded pieces, where the decoration may simply be lost (*e.g.* **GE8, FR8.iii-iv**).[37] Ten of the incised axes had the decoration on the left side only.[38] The remaining were split evenly between being decorated on the right side only (five axes) and having decoration on both sides (four axes).[39]

List of Type1A Miniature Axes: **BR1, BR10, BR18, BR21, BR25, BR34, BR47.ii, BR47.vi, BR50, BR61.ii-iii, FR5, FR8.iii-iv, FR10, FR11, FR12, FR13, FR14, FR16.i-ii, FR18.i-iii, FR19, FR20.i-iv, GE8 (Total: 29).**

Type 1B: These model axes are very similar to those of type 1A, but the upper and lower faces of the haft diverge to form a slightly larger bit and a trapezoidal blade. All are complete axe models. The average length is 37 mm, with specimens ranging from 31 to 49 mm. There is little or no nape, and the haft does not protrude from the top, or only very slightly (**BR42.ii**). Incised decoration appears on six of the eight axes in this group. In five cases the decoration is on the left side, in one instance on the right.

List of Type 1B Miniature Axes: **BR15.i-ii BR47.i, FR6.i-iii, BR42.ii, SU6.ii. (Total: 8).**

Type 1C: The overall profile is still more or less rectangular, and sometimes expands towards the bit as in 1B, but the blade has a large rectangular nape. The total length of these models ranges from 25 to 53 mm, and the average length is 37 mm. The haft may protrude very slightly above the upper face (*e.g.***BR3.i**). The specimen from Woodeaton (**BR61.i**) may be cut from a sheet of bronze rather than cast. Incised decoration appears on five of the seven specimens in this group, three times on the left side, once on the right side, and once on both sides.

List of Type 1C Miniature Axes: **BR3.i, BR16, BR47.iv-v, BR52, BR61.i, BE2. (Total: 7)**

Incised markings appear on 68% of the type 1 models (30 of the 44 examples), and roughly two thirds of these (18 model axes) are decorated on the left side only. The remainder are divided between having decoration on the right side only (seven examples) and on both sides (five examples). The most common form of decoration consists of vertical or diagonal bars (**BR3, BR18, BR25, FR6, FR16.i, FR20.i-iii**) or X's combined with bars (**BR21, BR34, FR11**). Single X's and crosses are quite rare, being represented by only four specimens (**BR15.i-ii, BR60.i, BR47.ii, FR13**). More unusual markings include the inscription from Vertault (**FR19**), a circle (**FR10**), the stamped crescents from Viéil Evreux (**FR20.i-iii**), and the irregular forms on two axes from Woodeaton (**BR60.ii-iii**).

37 The undecorated examples are: **BR1, BR10, BR47.ii and vi, GE7 FR8.iii-iv, FR11, FR16. ii, FR20.iv.**

38 Inscribed on the left side only are: **BR18, BR21, BR25, FR5, FR13, FR10, FR19, FR20.i-iii.**

39 With decoration on the right side only: **BR50, FR18.i-iii, FR14.**With decoration on both sides: **BR34, BR59.ii-iii, FR12.**

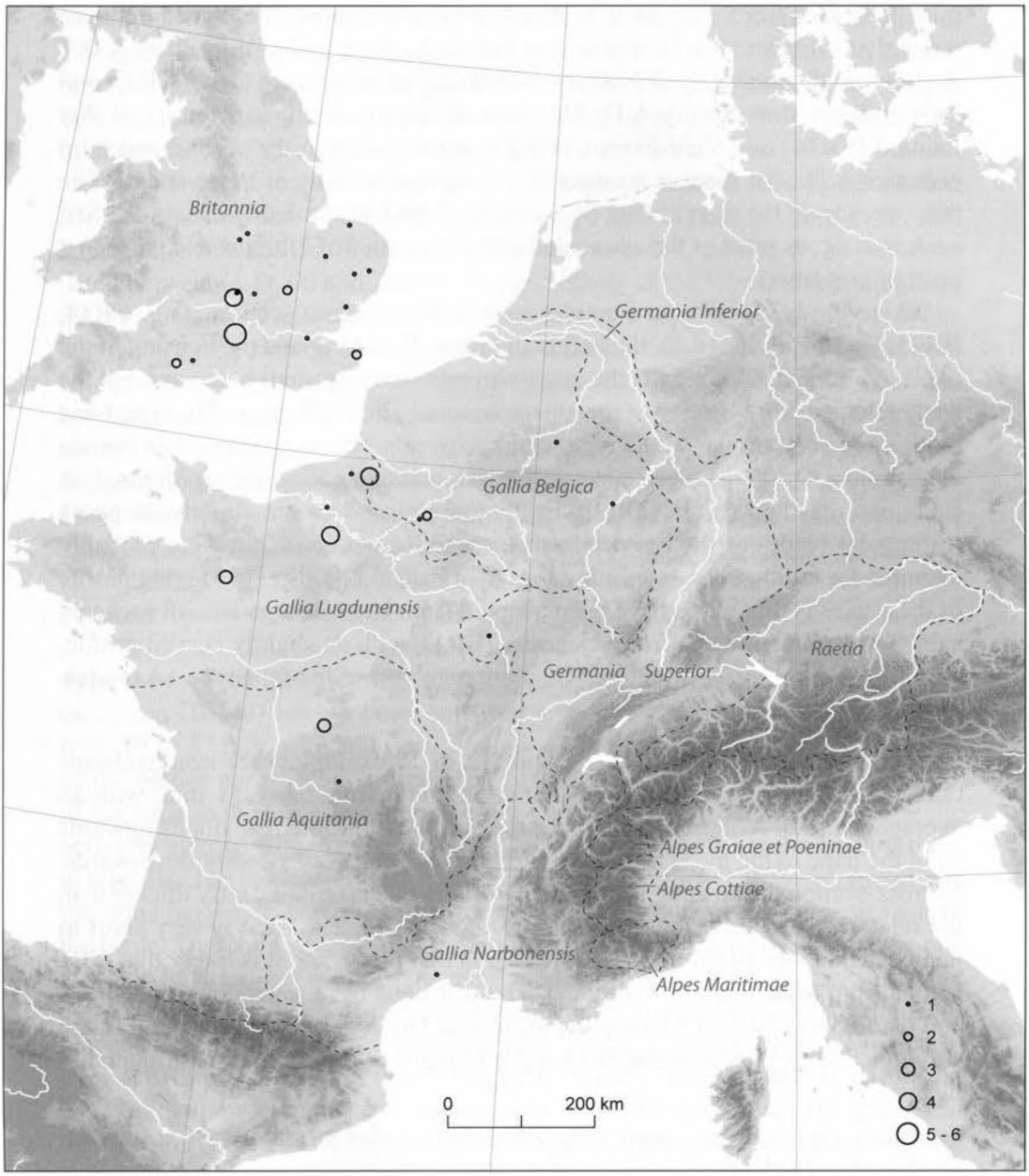

Fig. 4.7. Distribution of Type 1 Miniature Axes.

Type 1 axes are found in Britain and northern France (**fig. 4.7**), but few of the actual find spots have narrowly datable archaeological contexts. Most of the miniature axes from excavated or dated sites could simply be placed between the early first century A.D. and to the end of the third or fourth century A.D.[40] Activity on the sanctuary at Fesques (**FR5**) begins in the third century B.C. and lasts until the first century A.D. The peak of activity in the sanctuaries at Puy Lautard (**FR14**) and Vieil-Évreux (**FR20.i-iv**) occurred in the second and third centuries A.D., but there is no trace of pre-Roman activity at Puy Lautard. The three axes from the river at Gué St.-Léonard (**FR6.i-iii**) probably date to the first century A.D., as most of the associated coins are issues of Tiberius and other first century emperors.

Where the blade of type 1 model axes is flat in cross section (*e.g.* **FR14, BR25, FR20.i-iii, FR16.ii**), the haft is significantly thicker and the housing of the blade cylindrical. This recalls the cross-sections Iron Age shaft hole axes, but the wedge shaped cross-section of the others is more typically Roman. The type 1 axe models are very similar to the rectangular axes attached to the *fasces* of Roman magistrates, and the symbolic axe of Roman priests as they are represented on stone carvings and coins.[41] Otherwise they are closest to the slightly drooping rectangular blades of the heavier Iron Age and Roman axes that were probably intended for felling trees or splitting logs.[42] In Britain, the slightly sagging profile of these axes is thought to have been adapted from late Iron Age British socketed axes.[43] The miniature axe from Alchester (**BR1**), with its slightly curved profile, seems to confirm this attribution. The more regular profile of the type 1A models is probably just a simplification.

Type 2: Most of the axes in this group (12 of 15 examples) are iron axeheads rather than complete models. They range in width from 28 to 51 mm, with an average width of 47.5 mm. The upper face is a straight line that slopes upwards from the nape to the toe. The bottom face curves gently but steadily downwards. In cross-section the housing is normally cylindrical, and significantly thicker than the relatively flat blade, but a few are wedge-shaped. The nape is very short to nonexistent. Only **BR52** and **GE1** are cast in one piece, and it is likely that **GE1** is a hair pin rather than a true model. The rest must have separately-made hafts and blades, and four are incomplete axeheads. The bronze axehead found in the amphitheatre in Windisch (**SU30**) has the remains of an iron haft still lodged in its eye.

List of Type 2 Miniature Axes: **BR41, FR8.i, FR9.i-v, SU4.2, SU9, SU18, SU30, SU31.viii, GE1, GE10.ii, BE1. (Total: 15).**

40 *E.g.* **BR47.ii, BR10, BR61.ii-iii, FR19.**

41 Schäfer 1989: 225-227. See also his typology in the 'Beilagen' 1-2. See below section **12.3.**

42 Manning 1985: type 1; Pohanka 1986: type 5; Duvauchelle 2005: type 1A; Künzl 1993: NH1.

43 Manning and Saunders 1972.

The profile of type 2 axe models is easily recognisable in a common life-sized prototype.[44] The form is Iron Age in origin (examples were found at La Téne), but it was adopted in the Roman period as well, and there are numerous examples from first and second century Roman contexts.[45] The Roman axes of this type preserved the Iron Age profile, but reverted to the typical wedge-shaped Roman cross-section. Thus, the presence of both types of cross-section amongst miniature axes of this type is not surprising.

The dating and scattered distribution of the type 2 models reflects that of their life sized prototypes. The model from La Tène (**SU18**) surely dates to the late Iron Age, while the one from the Roman fort at Bad Cannstatt (**GE1**) must be dated between A.D. 90 and 200. Likewise, activity at the Windisch amphitheatre (**SU30**) begins in the last years of the first century B.C., and stops at the beginning of the second century A.D. The example from Winterthur (**SU31.viii**) belongs to a context with a *terminus post quem* of 7 B.C. that was established by dendrochronology. This same section of the settlement seems to have been abandoned by A.D. 150. As discussed in chapter 3 (**3.3.8** and **3.4.2**), the models from Mouzon (**FR9.i-v**) and Blicquy (**BE1**) all date to the early first century A.D. Finds from the latter site also included life-sized axeheads. All but one of the models have *terminus ante quem* dates of about A.D. 200, which also conforms to the life-sized prototypes.[46] Thus type 2 models can be broadly dated from the late Iron Age to about A.D. 200.

Type 3A: All of these models are complete axes and cast in bronze; the only exception (**BR46**) having been cut from a bronze sheet. They range in length from 19 to 37 mm, with an average length of 31 mm. The upper and lower faces of the blades are parallel and convex, running in a single curve from the back of the nape to the bit. The napes of a few specimens (*e.g.* **BR6.i-ii**) are not quite perfectly aligned with the rest of the blade's profile – a trait which connects them to type 3B. The blade is usually triangular in cross section. The toe is normally at the same height or higher than the top of the haft, which always emerges above the blade. There is a good deal of variation in the height of the blades, and the rate at which this changes between the nape and the bit. The blades that are relatively constant in height (*e.g.* **BR45**) can be compared to the rare drooping rectangular blades of type 1. The hafts are mostly plain and cylindrical, though two end in knobs (**BR3.ii** and **BR2**). A few of the hafts from this group (**BR8.i-ii, BR6.ii-iii, BR29**) emerge rectangular in cross section above the blade, but are cylindrical below it. Just over half of these models (11 specimens) have no incised decoration

44 Manning 1985: type 2 and 3; Pohanka 1986: 236-237, type 2a and 2b; Duvauchelle 2005: type 2B.

45 Vouga 1923: 110, pl. 43.6 and 7. Pohanka (1986: 237-238) lists various examples from Roman sites.

46 The exception is **FR8.i**, which is from a site dating from the late Iron Age to the early fourth century A.D.

at all. One is decorated on both sides, six on the left and two on the right sides only.

List of Type 3A Miniature Axes: **BR2, BR3.ii, BR5.i-ii, BR6.i-iii, BR7, BR8.i-ii, BR13, BR14, BR17.i-ii, BR19, BR29, BR36, BR45, BR46, BR51. (Total: 20).**

Type 3B: This type is similar to the last, but is characterised by a rectangular nape that is positioned significantly lower than the upper face on the blade side of the haft, which always protrudes from the top. All of these models are complete axes and are cast in bronze. The bit is usually slightly rounded. The examples from South Ferriby (**BR48**) and Kirmington (**BR30.i**) have slightly different profiles, with almost symmetrical blades like those of the type 4 models. Axes of this type range from 24.5 to 34 mm in length, and have an average length of 30.5 mm. Incised decoration is present on five of the eight axes, appearing four times on the left side and once on the right. The remaining three models are plain.

List of Type 3B Miniature Axes: **BR28, BR30.i-ii, BR33, BR42.i, BR48, BR53, BR59. (Total: 8).**

Interestingly, all but one (**SU29.ii**) of the type 3A and 3B models come from British sites. There is very little evidence for dating, but one example (**BR3.ii**) was found in the filling of a pit with pottery dating from A.D. 180 to 220. Activity on the entire site, however, begins in the middle of the first century B.C. and continues until the fourth century A.D. Another model axe from the same site (**BR3.i**) was found in the circular shrine at Brigstock, which is thought to have been built around A.D. 250. The model with the best datable context comes from below a Roman road at Richborough (**BR42.i**), and thus has a good *terminus ante quem* of A.D. 80.

The type 3 models find counterparts in a very common group of life-sized axes described by Manning as "the Roman axe *par excellence*."[47] This axe type had a long history from the Iron Age to the end of the Roman period, and is attested throughout the north-west provinces, and may have served as the inspiration for the Saxon *francisca*.[48] It is possible that a few of the models with wider blades (*e.g.* **BR17.i-ii, BR45**) copy axes with a rectangular drooping blade, which we have already seen to be imitated by some of the type 1 axe models.[49]

Type 4: The upper and lower faces can be straight or curved, but are always equal in length, and diverge sharply away from each other at a mirrored angle. They are joined by a broad straight or slightly rounded bit. A horizontal line bisecting the middle of the blade from nape to bit would divide it into two symmetrical halves. In two instances (**GE2** and **FR7.ii**) there is no nape. Five of the twelve examples are without hafts (**GE10, BR34, FR8.ii BR61.iv FR8.ii**) all of which

47 Manning 1985: 16, type 4; Duvauchelle 2005: 136, type 3.

48 For a commentary on the type and further British and continental examples see Manning 1985: 116, and for Avenches see Duvauchelle 2005: 36-37.

49 Manning 1985: type 1; Pohanka 1986: type 5; Duvauchelle 2005: type 1A; Künzl 1993: NH1.

are conceivably pendants rather than true models. The remaining models are complete representations of axes and range in length from 29 to 54 mm, with an average length of 37.5 mm. All are bronze, except for the specimen from Le Tremblois (**FR7**) which is iron and ends in a ring at the base of the haft. Only one example (**BR44**) has incised decoration, and that is in the form of an X covering the left housing.

List of Type 4 Miniature Axes: **BR4, BR12, BR20, BR35, BR38, BR44, BR61.iv, BR64, FR7.ii, GE2, GE9, FR8.ii. (Total: 12).**

There is no clear precedent for these models amongst life sized Roman axe types within the study area. Instead we must look to a rare Roman type found in Austria, at Magdalensburg (*Carnuntum*) in early first century A.D. contexts.[50] Pohanka suggested that the life sized axes of this type were Roman adaptations based on Iron Age precedents.[51] In any event, there can be little doubt that several of the models in this group (**BR4, BR44, GE2**) copy this type, even if a life-sized version has yet to be documented within the study area.

The bulk of the type 4 miniature axes (8) come from Britain. A single specimen is from France and two are from Germany. Both the French model (**FR7.ii**) and one of the German finds (**GE9**) are rather unusual forms and may not be true model axes at all. The latter is quite probably from a hairpin, and the former includes a suspension loop. In any event, it is important to note that neither of the German examples comes from a military context. Very few of the type 4 models are from datable findspots, and none from a narrow context. Two British axes (**BR20** and **BR61.iv**) are from sites dated from the first century A.D. to the fourth century A.D., and two French examples can be placed between the first century B.C. to the fourth century A.D. (**FR7, FR8.ii**).

Type 5: Forrer termed the model axes of this type as the 'Allmendingentypus,' after the famous inscribed specimens found in the sanctuary at Allmendingen in 1824 (**SU2**). The two most notable features of the type are large, roughly triangular blades, and curved hafts. With a total of 68 specimens, type 5 is the largest group of model axes by a wide margin. About 51% of the models (35 examples) are made of iron, and 40% (27 models) are bronze. The iron axes were hammered out from thin iron bars and rods, as can be seen in the flat sides of the hafts, which sometimes have almost rectangular cross sections. The iron examples range from 47 to 153 mm in length, with an average length of 72.3 mm. The bronze specimens are usually cast in a single piece, and range from 30 to 121 mm in length, with an average length of 69.5 mm. Four silver specimens are also recorded (**GE5, SU22.i-ii** and **SU28.ii**), but I have not been able to see any of them personally.

50 Pohanka 1986: 247, cat. nos. 206-211 (Magdalensberg). The Roman camp at Wallsee on the Danube also produced one specimen of this type, cat no. 212.

51 Pohanka 1986: 248.

The upper and lower faces can be either curved (*e.g.* **SU28.iv, GE5, SU23**) or straight (*e.g.* **SU27.i, SU2.i-vii**). In most cases the overall outline of the blade is roughly that of an equilateral triangle, but in a few instances the heel of the blade sinks significantly more than the toe rises (**SU6.i, SU11, SU12**). The position of the blade in relation to the haft also varies. It sometimes points upwards at an obtuse angle (*e.g.* **SU14.ii, SU23.iii, FR7.1**), but more often downwards at an acute angle (*e.g.* **SU10.i and iv, SU11, SU15, SU20**). It is most frequently mounted at a right angle to the haft (*e.g.* **SU2.i, .ii, .v, and .vi, SU7.i-iii, SU10.ii-iii, SU19, SU21.i**). In cross-section the blades are always quite thin, and on a few examples (**SU2.i-vii, SU10.ii, SU33**), they are entirely flat along with the upper section of the haft.

The curvature of the haft also varies greatly. A few of the models (*e.g.* **SU10.1, SU26.i, FR7.i**) have straight hafts which only curve at the very top just before the blade. Others bend forwards in a slight and steady curve that reaches its maximum at the middle of the haft (*e.g.* **SU10.iv, SU14.i, SU21.i**). The majority, however, are straight for about two thirds of their total length starting at the base. They bend backwards for the remainder of the length of the haft, and then curve abruptly forwards to form the blade. The overall shape is roughly that of an inverted letter 'S.' The point where the haft turns into the blade varies greatly in width from a narrow tube (**SU20, SU24.ii, SU26.i**) to a wide length forming an almost rectangular blade (**SU17, SU19, SU28**).

Some miniature axes of this type are certainly straighter and more regular products, and might be mistaken for the symmetrical triangular models of type 4 (*e.g.* **FR7.i, SU32, SU33**), but the hafts of type 5 never continue above the blade. In spite of the diversity of the type 5 models, there seems to be no consistent pattern to their variation, and it is impossible to establish convincing subdivisions.

List of Type 5 Miniature Axes: Iron: **SU1, SU4.i, SU5, SU6.i and iii, SU7.i-iii, SU8, SU9.i-ii, SU10.iii, SU11, SU12.i-ii, SU13, SU14.i-iii, SU15, SU17, SU20, SU21.ii, SU23.i-iii, SU24.i, SU26.i-iii, SU28.i-iii, SU31.vii, FR1.** (35) Bronze: **SU2.i-vii, SU3.i, SU4.iii, SU10.i-ii and iv, SU19, SU21.i, SU24.ii-iii, SU27.i-ii, SU31.iv-vi, SU32, SU33, SU34, FR7.i, FR15.i, FR17.** (27) Silver: **SU22.i-ii, SU28.vi, GE5.** (4) Metal Unknown: **SU25, SU28.iv-v.** (2) **(Total: 68)**.

A number of miniature axes resemble the Allmendingen axes quite closely, but have not been included in the group, as they are somewhat anomalous, including two miniature iron axes from Lamyatt Beacon. The smaller of the two (**BR32.iii**) has a straight haft, and although the upper and lower faces are curved like a type 5 model, the blade is broken in the middle, and the full profile is lost. The blade of the larger specimen (**BR32.iv**) is undeniably like that of the other Allmendingen types, but the haft is a half-cylindrical socket rather than a solid piece of metal. If this object is a model axe at all, then it must have been mounted on a partly wooden haft. The nature of a large iron object in the Swiss National Museum in Zurich (**SU16**) is similarly dubious. It is recorded as having been found in Kleinandelfinden, but no further particulars are available. It is very close to the other Allmendingen types in form, with a round haft and triangular blade, but at

29 cm, is more than twice the length of the largest type 5 model axes. Moreover, the base terminates in a spike, and there is a flat circular knob behind the nape. The spike suggests that this object was initially mounted in something wooden, but whether this was the fist of a statue, at the top of a staff, or in part of a building is impossible to decide.

Markings are very common on the true Allmendingen type miniature axes. About 62% of the type 5 axes (41 models) have incised decoration. Because the iron examples are frequently covered in a thick coating of corrosion, or have lost their original surfaces, it is quite likely some inscribed decoration has also been lost.[52] At least 15 iron models and 23 of the bronze models, and two silver model axes have visible decoration.[53] In most instances the decoration was limited to the cheek of the blade, but it descends down the flattened haft of four models (**SU2. iii-iv** and **vii, SU33**), and squares are stamped on the upper haft of three models from Winterthur (**SU31.iv-vi**). It is remarkable to note that the incised decoration appears exclusively on the left sides of the blades, with absolutely no exceptions.

The most common form of decoration is a single triangle on the blade (**SU10. iii, SU 13, SU14.i** and **iii, SU15, SU24.i, SU6.ii, SU10.i, SU19, SU24.ii, SU28. iv SU32, SU 31.vii**). The triangle is sometimes replaced by a sideways chevron (>) (**SU1 SU23.i-ii, SU28.iii**). With a single exception (**SU31.vii**), one side of the incised triangles, or the open face of the chevron, is always parallel to the bit of the blade. The possible significance of this observation will be returned to later. In a number of cases the triangle is accompanied by additional decorative elements, including inscriptions (**SU2.i-vii, SU27.i**), circles (**SU27.ii**), rows of dots (**SU21.i**), dots and lines (**SU33**), squares (**SU31.iv-vi**). Inscribed models that lack the triangle are less common, but include X's (**SU6.i, SU20, SU34**), an X in a box (**SU28.ii**), and circles (**SU24.ii**). At least one of the inscribed triangles contains silver inlay (**SU32**).

Nine of the type 5 axes (**SU2.i-vii, SU23.iii, SU27.i**) are inscribed or stamped with the names of gods, and will be discussed later. Though not inscribed, the most impressive piece of decoration is the silvered medallion that is attached to the left cheek of a bronze miniature axe from Avenches (**SU4.iii**).[54] Within a border of four concentric circles, it depicts a winged victory standing on a globe, holding a wreath and palm branch, and facing left. In spite of a supposed find spot next to a Roman wall in 1827, the piece is now thought to be a 19th century

52 Examples of heavily corroded or encrusted pieces include **SU7.i-iii, SU9.i-ii, SU11, SU28.i** etc.

53 Iron: **SU1, SU6.i, SU10.iii, SU13, SU31.vii, SU14.i and iii, SU15, SU 20, SU23.i-ii, SU23. iii, SU24.i, SU28.ii, SU28.iii;** bronze: **SU2.i-vii, SU4.iii, SU6.ii-iii, SU10.i-ii, SU19, SU21.i, SU24.ii-iii, SU27.i-ii, SU31.iv-vi, SU33, SU32;** silver: **SU22.i-ii.** A single model, **SU28.iv**, is of unknown metal, but is incised with a triangle.

54 The medallion is apparently a separate silver piece rather than part of the axe that has been stamped or cast and later filled or plated with silver (Forrer 1948: 27 and the database entry of the Musée cantonal d'archéologie et d'histoire, Lausanne).

forgery.[55] I have not seen it personally, but the silver medallion and the high quality of the piece is so unusual that this interpretation is probably correct.

Type 5 axes are known from a large number of well dated archaeological contexts. The middle of the second century A.D. is a common *terminus ante quem* date for sites and contexts with type 5 model axes (**SU9.i-ii, SU10.i-iii, SU12.i-ii, SU24.i-iii**), but so is the late first century A.D. (**SU1, SU14.i-iii, SU23.i-iii**). Several sites have early dates in the first half of the first century A.D. (*e.g.* **SU1, SU17, SU21, SU26.i**), but the late first century B.C. is also attested (*e.g.* **SU23.i-iii, SU9.i-ii, SU19**). Three sites yielded models in contexts that are narrowly datable from the late first century B.C. (or early first century A.D.) to the end of the first century A.D. (**SU1, SU14.i-iii, SU22.i-iii**). Though surface finds, it is probably that the models from the sanctuary at En Chaplix (**SU6.i-iii**) belong to this same group, as the temple's main period of activity was the first century A.D. The fact that models of this type were produced in the pre-Roman period is confirmed by finds of type 5 axe models outside the study area, and indeed outside the Roman Empire, most notably at the oppidum of the Boii at Stratonice in the modern Czech Republic. This site was founded in the middle of the second century B.C., fortified around 120 B.C., and destroyed in 9 B.C. in connection with Germanic incursions. An identical dating can also be assigned to a specimen found in another oppidum at Hrazany, also in the Czech Republic. Thus it is fairly safe to assume that the model axes of the Allmendingen type were produced between approximately 50 B.C. and 100 A.D.

Type 5 model axes are almost entirely limited to western Switzerland (**fig. 4.8**), but there are a few outliers besides those from the Czech Republic. Three French examples and the one from Germany all serve to confirm that the Allmendingen type miniature axes were dedicated outside Switzerland as well. With a length of 30 mm, the specimen from Le Tremblois (**FR7.i**) is certainly smaller than other bronze Allmendingen types, but it is identical in form to examples from Winterthur (**SU31.iv-vi**) and Yverdon (**SU32**), and well within the size range of type 3 and 4 model axes. The piece from Rennes (**FR15.i**) is also smaller, and has a straight haft, but is essentially no different than an example Augst (**SU3.i**), and was found with another model axe that is fairly similar to type 1A. The flat model from Saint-Jean-Trolimon (**FR17**) is undeniably the same form as the other Allmendingen types, and is strikingly similar to the specimen from Zurich which is also flat (**SU34**). This leads to the inevitable conclusion that the Allmendingen type axes are essentially no different in meaning than the smaller model axes of other parts.

Unlike all of the other axe models discussed so far, the Allmendingen type models represent socketed axes, not shaft hole axes, and it is this trait that effectively lends the group overall cohesion. One of the bronze models from the Engelhalbinsel (**SU10.iv**) is a spectacular reproduction of a complete socketed axe. The section of blade immediately after the haft is marked by a raised ridge,

55 This information is from the conservator in Avenches.

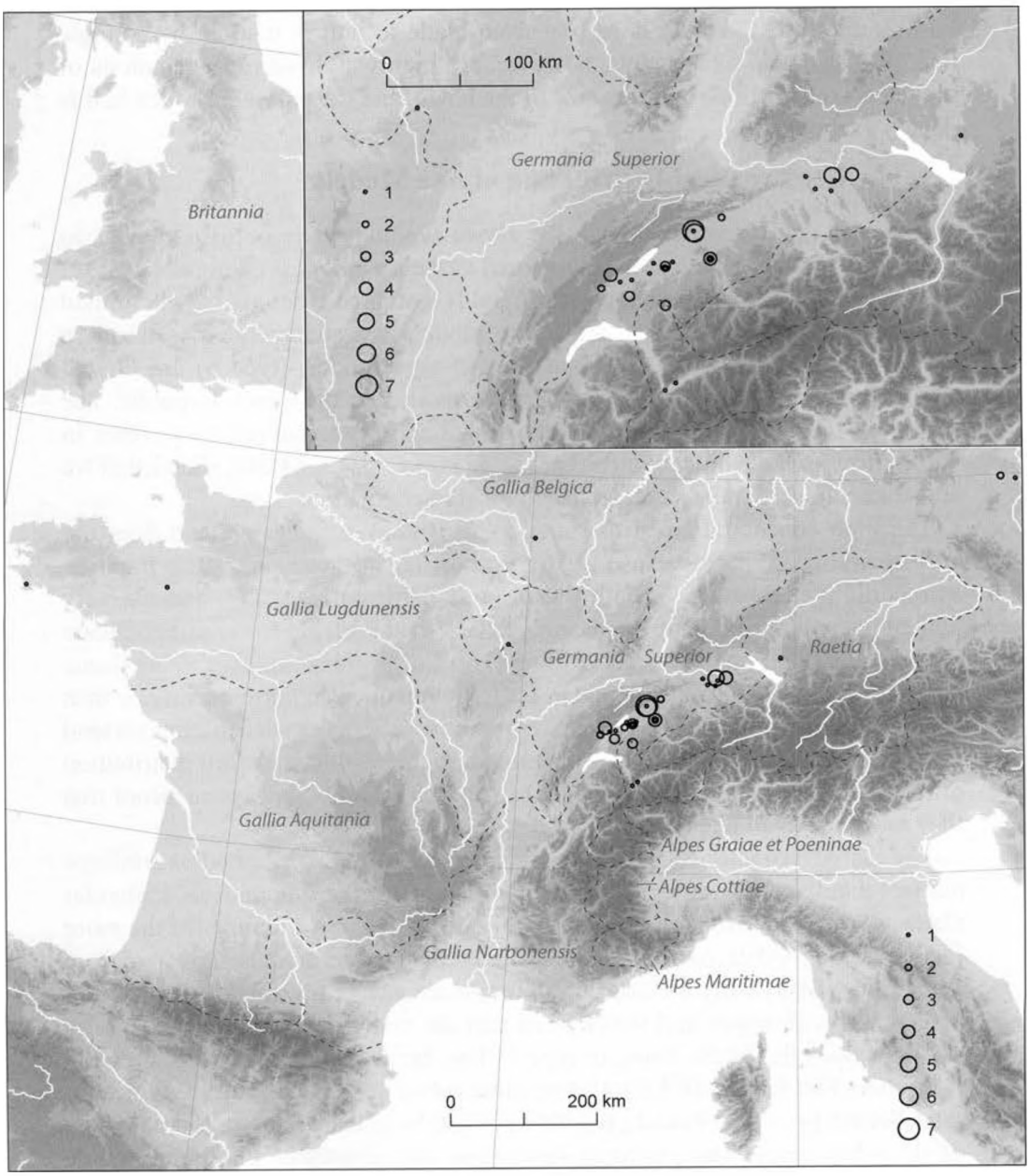

Fig. 4.8. Distribution of Type 5 Axes.

which surely represents the cord binding used to further secure the blade. In some instances, such as the models from Yverdon (**SU32**), Winterthur (**SU31.iv-vi**) and Le Tremblois (**FR7.i**), the transition from blade to haft is marked by a single line.[56] Most type 5 axe models, however, are highly stylised representations of socketed axes in which both the size of the blade, and the curvature of the haft is greatly exaggerated.

4.7. The Geographical Distribution of Axe Models

However unsatisfactory though the above typology may be, it allows us to make some broad observations on regional variation amongst the model axes, of which the most obvious and important trend is that three types are largely limited to specific areas. The type 1 and 3 axe models are concentrated in northern France and Britain, while the Allmendingen type models (type 5) are limited to Switzerland, eastern France, southern Germany and the Czech Republic. The scattering of other models, and the occasional appearance of other axe types in the territory of the Allmendingen types (*e.g.* **SU3.i, SU18, SU30**), shows that we are still dealing with the same archaeological phenomenon.

The high concentration of axe models in Britain and Switzerland does not necessarily mean that their use was more popular in these areas. The tradition of recording small finds in both countries is particularly strong, and the very numerous finds recorded by the recently established Portable Antiquities Scheme inflate the British numbers even further. The *Carte Archéologique de la Gaule* also shows that small finds are given far more attention in northern France than elsewhere in the country. The volumes covering southern French departments tend to concentrate much more on architecture and sculpture. The overall distribution of model axes throughout the study area (**fig. 4.9**) should be taken as proof that they are a universal phenomenon.

The shared characteristics of the different types and individual models reinforce the fact that they are part of the same tradition. Thus the symmetrical triangular blades of type 4 axe models are not so very different from a number of the more regular type 5 models. As well as three Allmendingen type models, the hoard from Winterthur (**SU31.i-iii**) included three miniature axes with roughly rectangular blades, but with upper and lower faces that are concave. They are not so very different from the forms found in type 1. Two bronze models from Rennes and Avenches (**FR15.i** and **SU3.i**) have the same curvilinear blades that are typical of the Allmendingen type models, but have straight hafts that are more characteristic of the other types. The inscribed decoration also illustrates this point. While triangles are limited to Swiss miniature axes, the X motif, bars, and circles appear throughout the study area on all types. If the late dating of the miniature socketed

56 It is just possible that these models represent Bronze Age axes types, where the back of the blade was hammered into the haft. With socketed axes, however, I assume that the wooden terminal of the haft that inserted into the socket had been carved to a thinner size and regular shape. By leaving the very back of the haft larger that the socket of the blade, additional support was provided.

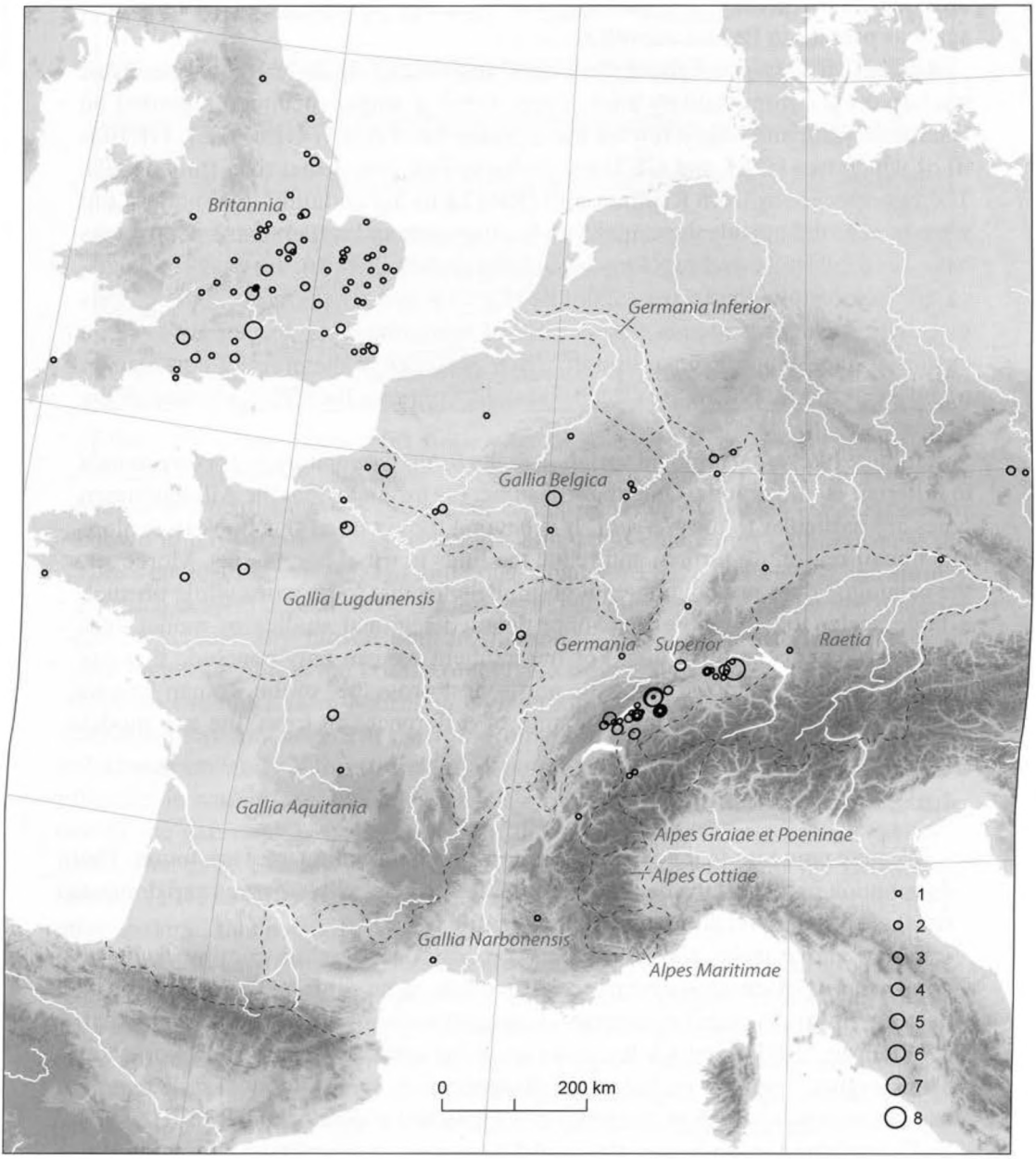

Fig. 4.9. The Overall Distribution of Miniature Axes.

axeheads from south England (see above **4.3**) can be confirmed, and these models turn out to be votives rather than amulets, then an Allmendingen type miniature axe was present in Britain as well.

Another striking point about the overall distribution is the extreme paucity of miniature axes from military sites. There is not a single specimen recorded on Hadrian's Wall, and only a few on the German *limes* (**GE1, GE6, GE7, GE10.i-ii**) of which two (**GE1** and **GE7**) are probably hair pins rather than true models. The two specimens from Richborough (**BR42.i-ii**) are certainly true models, but were both found outside the actual fort. Roman forts and settlements in both areas have been carefully and regularly excavated and studied for the past 150 years, so the lack of miniature axes cannot be due to scholarly preference alone. This distribution pattern suggests that the use of miniature axes was a native Celtic custom, rather than a Roman import. Their presence at the entirely non-Roman oppidum at Stradonice in the Czech Republic confirms the Celtic identity of the rite.

It is quite likely that regional variation in the form of miniature axes corresponds to different ethnic groups. One might assume, for instance, that the Allmendingen types are particular to the *Helvetii*. It is beyond the scope of this book to explore this line of reasoning further, and relate the finds to tribal boundaries. Moreover, the catalogue does not contain enough models for this to be worthwhile on such a large scale. It is possible that more detailed regional studies of model axes will some day accomplish this. For the moment we can only conclude that axe models are to be found in all of the north-west provinces of the Roman Empire and perhaps in all Celtic areas. In spite of differences in form, the axe models probably all reflect the same ritual.

4.8. Sites with Miniature Axes

We may now turn to the types of sites on which miniature axes are found. Their distribution in respect to site type (temple sites, rivers, villas, graves and domestic sites) is summarized in the table below (**table 6**).

In the above table, specimens very broadly described as coming from *vici*, oppida or settlements have been recorded as having no context. The only piece that does not fit into the other categories is a model axehead found in the amphitheatre at Windisch (**SU30**), which has been included under domestic sites/workshops. The category 'temples' includes both Romano-Celtic and Classical style temples, as well as features such as the ritual pits identified at Baldock (**BR3.i-ii**).

Throughout the study area the model axes were predominantly found in ritual contexts. Not one of the three axes listed as coming from graves were actually found directly in the burial itself.[57] They either came from the filling or the general area of the cemetery. Cemeteries were sometimes associated with Romano-Celtic temples, as is the case at En Chaplix in Avenches (**SU7.i-iii**). The same is true

57 **BR26, BR41, BR45**. Nor do any of these models resemble the bronze *Mithrassymbole*, which come from late antique burials (**8**).

Table 6. Distribution of miniature axes by modern country and site type.

Country	Sanctuaries	Rivers	Villas	Graves / Cemeteries	Workshop/ Domestic	No Prov.*	Total Axes
U.K.	25 (14)[1]	0	3 (3)	3 (3)[2]	0	56	87 (64)
Switzerland	43 (14)	4 (4)	7 (4)	0	7 (4)[3]	18	79 (26)
France	23 (12)	5 (2)	0	0	1 (1)	9	38 (20)
Germany	3 (4)	0	0	0	0	8	11 (8)
Belgium	1 (1)	0	0	0	1 (1)[4]	0	2 (2)
Total	**95 (45)**	**9 (6)**	**10 (7)**	**(3) 3**	**9 (6)**	**91**	**217 (120)**

Notes:
* -- includes both sites with no provenience, and those where the nature of the site was unclear.
1 - The temple at Harlow (**BR23**) is merely recorded as having 'several model axes.' It has simpy been counted as yielding two model axes.
2 - In not one case is the axe actually from the burial, but from a cemetry or the filling of a grave (**BR26, BR41, BR45**).
3 - Includes one axe found in the amphitheatre at Windisch (**SU30**).
4 - **BE2**. This piece was found in a building interpreted as a covered market, some distance from the Romano-Celtic sanctuary.

of the various miniature axes from villa sites. Every Roman villa would have included a *lararium*, at which votive offerings, perhaps including miniature axes, could be made. Villa complexes can be extremely large, and some are even known to have incorporated Romano-Celtic style sanctuaries within or near the villa's enclosure.[58] Workshops and houses may also have had *lararia* and shrines at which dedications could be made. Moreover, one must not forget that material can be accidentally moved both in the antique period and afterwards. Thus it may be pertinent that the bronze model axe from Clavier-Vervoz (**BE2**) and the two iron examples from houses in Winterthur (**SU31.vii-viii**) are both situated only a few hundred metres away from Romano-Celtic sanctuaries. The river finds are almost certainly a form of ritual deposit. The tradition of depositing votive offerings in watery contexts goes far back into pre-history, and it is notable that one of the axe models may come from the watery deposit at La Tène (**SU18**) itself. The three examples from Gué St-Léonard (**FR6.i-iii**) and the two from Rennes (**FR15.i-ii**) were associated with large numbers of coins, fibulae, and other material that can only be indicative of a votive activity.

The axe models from temple sites are frequently found in small groups, the largest of which is the seven specimens from Allmendingen. As a whole, Swiss sites have produced more and larger multiple finds than anywhere else. Overall there are about 1.8 axes per site on the sites of all types yielding axes within the study area. In Britain, there are 1.8 axes per temple site, compared to 3.1 per temple site in Switzerland. It is hard to put these numbers into a broader perspective, as it is difficult to obtain the total numbers of ritual sites within the various regions of the study area. Moreover, distinctions should probably be made between sanctuaries that were rich in finds, and those which seem to have been thoroughly cleaned out at the end of antiquity. The state of our understanding of Romano-Celtic religion and archaeology is not yet sufficiently advanced to solve

58 Fauduet 1993: 29.

either problem. In Switzerland, however, at least 48 Romano-Celtic sanctuary are sites known, of which 13 have yielded model axes. In Britain there are at least 125 sanctuary sites, of which 14 are known to have produced model axes.[59] That means that very roughly one in four Swiss sanctuaries yielded a miniature axe, and one in ten in Britain.

4.9. Chronology

The chronological information assembled here does not allow us to see any kind of detailed evolution in the forms or function of the axe models over time. It is true that the Allmendingen type models include most of the earliest datable examples, but the other types also include specimens with equally early dates (*e.g.* **FR3, FR5, FR14, FR18**). Once again, only detailed regional studies might be able to shed light on such developments.

Broadly speaking, the use of miniature axes must have begun before the Roman period, as the examples from Stradonice prove. Many of the sites with miniature axes were occupied until the very end of the Roman period, and it is just possible that some are from the late antique. Those examples from more narrowly datable contexts, however, suggest that the phenomenon began at the end of the Iron Age, and lasted until to about A.D. 200.

4.10. Realism of the Miniature Axes

As with miniature weapons, it is often difficult to decide whether particular traits of the model axes are reflective of life-sized axes, or are merely the result of crude manufacture and stylisation. It has already been suggested that most of the type 5 axes are highly schematised representations of socketed axes. The remaining four types of model axe could be all identified with life-sized prototypes, but all of these prototypes have long histories themselves which extend back into the Iron Age. Like model axes, life-sized axeheads evolved over time, and incorporate a good deal of regional variation.

One unusual trait that can be observed on a number of type 3 miniature axes (*e.g.*, **BR6.ii, R8.i-ii, BR12, BR29, BR30.ii**) is a change from a cylindrical haft below the blade, to a haft that is rectangular in cross-section above it. This may just be the result of sloppy workmanship, but might also be meant to represent a blade where the top of the haft is covered by a square iron cap. Rectangular iron lugs do appear above and below the shaft hole of many life-sized Roman axe blades, and seem to be represented on some models (*e.g.* **BR2**), but I am not aware of any life-sized axes where the shaft hole is not open at both ends. Only a very rare group of decorative bronze ceremonial axeheads have such sealed shaft holes, and we will return to these later (**4.12.4**). Models where the top and bottom

59 The Swiss figure is taken from Drack and Fellmann 1988: 232. The British figure is based on Jones and Mattingly 1990: 283-285 maps 8:22 and 8:23. These authors distinguish between the standard Romano-Celtic sanctuaries, of which Britain has 'over fifty,' and simpler shrines. They do not give specific numbers, and I have merely counted the dots on their maps.

sections of the haft are misaligned are also known, and are presumably the result of sloppy workmanship (**BR20, BR 64**).

It is perhaps also significant that very few models seem to represent bearded axes. The only clear depiction of a bearded axe comes from Straubing, and is almost certainly a fragmentary hairpin (**GE7**). Life-sized bearded axes are most frequently found on the *limes*, and probably are originally an Italian form.[60] The type is known in the first and second centuries, but is more common in third and fourth century A.D. contexts, and was widely adapted in the medieval period. The lack of models copying this type of axe is supportive of the proposed date of A.D. 200 as a cut off for the production of the axe models.

The model axes have much to contribute to our understanding of their life-sized counterparts, as they depict not only the metal blades, but also the wooden hafts and method of mounting. The models suggest that many ancient axes would have incorporated knobs at the base of the haft, presumably to prevent the tool from flying out of the hands of its users. It has always been known that the hafts of prehistoric axes curved where the blade was inserted, but the Allmendingen models suggest that a curve in the upper section of haft was also normal. One example from the Engelhalbinsel (**SU10.iv**), must surely be one of the best illustrations of a complete socketed axe that one could possibly wish for.

4.11. Inscriptions and Other Markings

The various markings as they appear on individual types have been described above, and it is now appropriate to ask what these markings mean. On top of the few rare inscriptions, the axes bear triangles, X's, crosses, bars, zigzags, circles and so on. One puzzling point about these markings is the dominant tendency for them to appear on the left side of the model, a trait that most likely has something to do with how the votive models were displayed. One side was evidently more important than the other, or the axe blade was preferred to be shown pointing to the left. The theological or symbolical significance of this fact, if any, remains entirely unclear.

Turning to the individual types of marking, we may begin with the ten inscribed axes, which are summarized in **table 7**.

It has also been suggested that the V markings on certain model axes (*e.g.* **SU28.iii**) are short for VOTO.[61] This seems most unlikely to me, as the letter V never appears alone on stone inscriptions as an abbreviation for the phrase *ex voto solvit libens merito* – "fulfilled from a vow, gladly and deservedly." In fact, the V symbol is probably a simple variation on the triangle motif which is discussed below.

Apart from the example from Vertault, all of the inscribed miniature axes bear the names of Roman deities. The meaning of the Vertault model is quite unclear. There do not seem to be Gallic personal names that begin with these

60 Duvauchelle 2005: 37; Pohanka 1986: 253.

61 Amiet 1872: 378.

three letters, ALE, nor any deities.[62] The other miniature axes are dedicated to Jupiter (twice) Mercury, the *deae matres* (twice), Minerva (twice), Mars and Neptune. The lettering of the Allmendingen pieces is remarkably well executed. Several include round indentations at the terminal points of the letters, an engraving technique also used on Republican coins. Presumably these small indentations were drilled first and then prevented the incising tool from sliding too far along the surface of the models as it connected the dots to form the letters.

Table 7. Inscriptions on Miniature Axes.

BR2.i	IOVI
BR2.ii	MERCVRIO
BR2.iii	NEPTVNO
BR2.iv	MATRONIS
BR2.v	MINERVAE
BR2.vi	MATRIBVS
BR2.vii	MINERVAE
FR19	ALE
SU23.iii	MAR)TI (CA)TV(RIGI)[1]
SU27.i	DECIMVS / IOVI / VOT

1 - This seemingly wild reconstruction is supported by the finds of stone inscriptions dedicated to Mars Caturix on the same site.

The inscribed axe models allow for two major conclusions. First, the use of the dative case and the appearance of VOT(O) on one axe (**SU27.i**) reveal that the models were indeed part of the Roman-style votive ritual.[63] They are themselves offerings, or are otherwise related to dedication of material objects and the performance of animal sacrifices to divine powers. They are not amulets or toys. Second, the axes could be dedicated to more than one divinity. The deities to whom axes are dedicated include both Olympian gods, a water deity, and two Celtic divinities – the mother goddesses, and Mars Caturix. The mother goddesses were particularly popular in *germania inferior*, but were eventually exported throughout the entire north-west provinces.[64] Mars Caturix is more at home in Allmendingen, with most stone inscriptions bearing his name coming from the territory of the Helvetii and Lingones.[65] Thus we can be fairly sure that the miniature votive axes are not the symbols of any single divinity as was found to be the case with miniature wheels.

The major question regarding the other types of symbol found on axes is whether they denote physical features of real axes, or have some particular cultic meaning. It has been suggested that the X's inscribed on numerous model axe blades were skeuomorphs, representing the binding that reinforced the connection between a real axe's blade and haft.[66] This interpretation has largely been

62 At least, there is no obvious candidate in the lists of Evans (1967).

63 Another inscribed model axe of the Allmendingen type in the Museum at Lausanne-Vidy is mentioned on an amateur website: http://www3.dfj.vd.ch/~latin/Textes-museum/religion.htm#hachette (accessed Feb. 27th 2007). It bears a punctim inscription: CAIVS YSPOLEUS CA[...] V S L M. The deity addressed is probably Mars Caturix again. This piece also connects the axes to the Roman ritual of the vow. I have been unable to obtain any more definite information about this object, however, and thus have left it out of the catalogue.

64 See Derks 1998: 120-130.

65 Derks 1998: 97; van Andringa 2002: 147-149.

66 Kirk 1949: 40; Green 1975: 59; 1978: 32-33; 1981: 256; 1984: 69-70 and 88-91. Her later publications see some X's as skeuomorphic representations of binding, but others as ritual symbols.

Fig. 4.10. Inscribed Miniature Axeheads from Allmendingen. (Author, Historisches Museum, Bern). Almost 2x the actual size.

rejected in favour of seeing the X motif as a mark of dedication.[67] For Miranda Green, the X and cross are variants of the swastika, and belong to the pre-Roman realm of sun and sky symbolism.[68] Perhaps the best point against the X's as representations of binding lines is the fact that most life-sized shaft hole axes would not have required such reinforcement. Moreover, the X usually appears only on one side of the axe models.

Nonetheless, there are several compelling arguments in favour of the skeuomorphic interpretation of the X markings. Of the 19 models inscribed with X's, it appears on the housing in 12 cases.[69] In several instances, zig-zagging lines also occur on the housing, and the X on one specimen from Woodeaton (**BR60.i**) consists of multiple thin lines, like a cord being wrapped around the blade repeatedly.[70] The X is most common on type 1 models, of which the drooping variants and their life-sized prototypes probably inherited their profile from Iron Age socketed axes. Pohanka has proposed that certain rare Roman axeheads from Pannonia and Noricum had extra long and flat napes specifically to aid the attachment of cords. When mounted, these axes would have

67 Henig 1984: 149; De la Bédoyère (1989: 165) describes the X's as 'activating' the miniature gift. Green as above.

68 Green 1984a: 88-91.

69 With the X on the housing: **BR8.i-ii, BR15.i-ii, BR19, BR42.i-ii, BR44, BR47.v, BR60, BR61.i, FR12**; with the X on the cheek or nape: **BR21, BR30.ii, BR34, BR56, SU6, SU20, SU34**. The three Swiss examples are all type 5 axes.

70 **BR3.ii, BR16, BR29, BR16.1.**

had a profile very similar to those of type 1B.[71] Perhaps Roman shaft hole axes and their models did include unnecessary binding simply from force of habit. As time progressed, and life-sized axes ceased to have binding, the meaning of the X on the models was forgotten and it began to wander onto the cheek of the blades. But it is possible to find a much more convincing explanation of the X markings on miniature axes.

A very faint X can be seen on the casing of one the axe models of the *Mithrassymbole* type from a late third century burial in Bonn.[72] The *Mithrassymbole* are much later than the votive model axes, and an undeniably separate phenomenon (**8**). This suggests that the X's represented something that was still to be found on life-sized Roman axe, and it is probably unrealistic to expect unnecessary supporting cords to have lasted into the late antique period. I would argue that instead of representing such reinforcing cords, the X's and zig-zags represent the cords of cloth or leather sheaths that were used to protect iron axe blades when they were not in use. Such sheaths appear in several sculpted depictions of the axe connected to the Roman *fasces*, and are shown fastened to the blade by crossed strings in the form of an X that run over the cheek of the blade.[73] Examples can be seen on marble sepulchral carvings in the *Palazzo Massimo* (**fig. 4.13**), the *Palazzi Rondanini* and the *Conservatorio* in Rome.[74] In an era before the invention of stainless steel, protecting iron tools from rust and corrosion was a major concern.

Triangles and V shapes are limited to model axes found in Switzerland. It may be significant that the early Iron Age socketed axe amulet from Dürrnberg was suspended on the same necklace as a bronze triangle frame (**fig. 4.5**), and the use of the triangle motif extends back into pre-history. Forrer interpreted both the triangle and X-motif as symbols of lightning.[75] In a short study of triangle symbolism from the Neolithic to Roman period, Maringer proposed that triangles markings would have had multiple meanings, and that their presence on the axe models simply increased the sacred nature of these objects.[76] I would like to put forward another new explanation for the engraved triangles and V shapes on miniature axes, seeing them as another skeuomorphic trait.

As noted above, with only one exception, inscribed triangles on miniature axes always have one side running parallel to the bit of the blade. Similarly, the V shapes always open towards the bit. As these symbols typically appear on models representing socketed axes (type 5 models), they may well represent part of their life-sized prototypes. The sockets of many life-sized Iron Age socketed axes were

71 Pohanka 1986: 240-242, type 3, fig. 15.

72 This particular grave group is unpublished. It is in the Rheinlandesmuseum in Bonn, Inv. Nr. 30,540-1.

73 Schäfer 1989: 225.

74 Schäfer 1989: 365-366 and 369, cat. nos. A4, A5 and A15, 75.2, pls. 79.3-4, and 80.1.

75 Forrer 1948: 38-39.

76 Maringer 1976: 190.

often left open, having been formed by simply folding metal over on either side of the blade. These folds left a roughly triangular, or V-shaped channel on one side of the blade, which opened towards the bit (see **fig. 4.2.i**). The triangles engraved on the models may well have originally represented this mundane feature of socketed axes. As the Allmendingen type axe models became more and more stylised, so too did the triangles, whose true meaning had been forgotten as shaft hole axes replaced socketed axes in daily life. This interpretation explains both why the triangles appear exclusively on model axes from Switzerland, and why they never appear on more than one side of the axe. Given the fact that the incised triangle on the bronze model from Yvonand (**SU32**) was honoured with silver inlay, this rather banal explanation may be open to criticism.

The various circle and dot motifs, spirals, swastikas, crosses and other symbols that appear on axes have all been placed in the realm of sky and sun symbolism by Miranda Green.[77] All can be found in prehistoric images related to sun worship, as well as on miniature wheels and certain sculpted stone monuments of the Roman period. The three crescents stamped on each of the models from Argentomagus (**FR18.i-iii**) recall the Celtic love of multiplication and triplication in particular.[78] A similar significance might be attached to the increasing number of vertical bars on three of three identical miniature axes from Viéil Evreux (**FR20.i-iii**). The numerous circles that appear stamped on the one bronze model from the Engelhalbinsel (**SU10.ii**), and the mysterious fragment of bone that is wrapped around the base of its haft must have had some specific meaning as well.

It is a mistake, however, to overemphasize the importance of the markings on the axe models. The same motifs that appear on the miniature axes can also be found on quite mundane objects from non ritual contexts. It is quite possible that their presence on the miniature axes was chiefly decorative, and that their manufacturers thought little about the symbolism of the motifs they employed. The form of an axe was clearly the central theme in whatever ritual the models represent, not their inscribed decorations. It is the question of this ritual to which we may now turn.

4.12. Interpreting Miniature Axes

The function of miniature in votive ritual still remains to be explained. Apart from the obvious interpretations of the axes as substitutes (either for weapons or tools), there have been essentially two further interpretive approaches. The first, championed by Miranda Green, emphasizes the symbolic aspect of the axe models, connecting them to thunder, lightning and solar iconography. The second, first proposed by Graham Webster, connects the axe models with the axe used in Roman sacrifices. We will now consider all three theories, and discuss the possibility that the dedication of model axes can also be related to the collection of Neolithic and Bronze Age axes in Romano-Celtic sanctuaries.

77 Green 1984a: 69.

78 Green 1986a: 208-210.

4.12.1. Miniature Axes as Substitutes for Real Axes

The use of axe models as substitutes for the dedication of a craftsman's tools is perhaps the most obvious interpretation of these finds. But life-sized iron tools, including axes, are relatively rare in Romano-Celtic sanctuaries and other ritual contexts. A few tools, including two axes, were found in one of the ritual ditches at Gournay-sur-Aronde, and axeheads were found at Blicquy and at La Tène itself. These are exceptions, however, and all of the tools from the ritual trench at Gournay represent less than 1% of the other metalwork dedications found there.[79] Textual evidence for the dedication of axes is equally sparse. Appian records that Sulla had an axe, a golden crown, and a verse inscription sent to the sanctuary of Aphrodite in Aphrodisias, but this was in response to a dream in which the goddess ordered him to do so.[80] A now lost punctim inscription on a copper plaque from Cadenet (Coté d'Azur) provides the only written mention of an axe dedication within the study area.[81] The reading is problematic, but it seems to record the dedication of an axe (*securem*) to Mars and Dexsiva, presumably a local goddess, by a certain Quartus.[82]

A better case can be made for the use of miniature axes as substitutes for weapon dedications. The model axeheads found at Mouzon and Blicquy (**FR9.i-v** and **BE1**) force us to consider this possibility seriously, and pick up the thread that was left dangling in chapter 3 (**3.3.5** and **3.4.2**) It will be recalled that both sanctuaries yielded other types of model weapons, and had Iron Age traditions of life-sized weapon deposition. Quite independent of the evidence from Mouzon and Blicquy, Woodward has suggested that complete bronze model axes might also be weapon substitutes.[83] But axes vanish from the Celtic arsenal by the end of the Hallstatt period. They are virtually unknown amongst warrior burials from the entire La Tène period.[84] Roman relief carvings representing piles of captured weapons and *tropaia* do sometimes include double axes, though life sized double axeheads are very rare.[85] Only one of the axe models (**SU3.iii**), from a house in

79 Roymans 1990: 78. The other iron objects are mostly weapons. On axes from La Tène see Vouga 1923: 110-111.

80 Appian. *B. civ.* 1.97.

81 CIL 12.1063; Gascou 1995: 286, no. 221. Vauthey (1985: 69) sees this as a direct reference to the dedication of model axes such as those found in Switzerland, and Toutain (1920: 367) to "haches votifs." The CIL entry lists an '*aurea tabula*' but cites an earlier description which refers to it as being made of copper.

82 The usual reading of the plaque is: *D(ono) D(edit) QUARTUS MAR(TI) SA(=e)CUREM D(ono) D(edit) O(?)DEXSIVE QUARTUS SECVREM V(otum) S(olvit) L(ibens) M(erito).* But the section beginning with DEXSIVE is misaligned with the borders of the plaque and was most likely added later. If so, it may be correcting the misspelling of axe in the previous line, though this leaves an unsatisfactory DEX. In any case, the placque undoubtedly records the dedication of an axe.

83 Woodward 1992: 69.

84 Brunaux and Lambot 1987: 96-97.

85 Examples of double axes appearing in carved depictions of war-booty see: Espérandieu nos. 46, 533, 688, 691, 692, 698, 700, 712.

Augusta Raurica, represents a double axe, and is far more likely to come from a Jupiter Dolichenus or Sabazius statuette than to belong to the main group of miniature axes.

It is hard to imagine a single bladed axe being an effective weapon, as it would have required large motions that would have left the user exposed to attack at the end of each swing. Tacitus refers to the use of axes by legionaries, but always as a weapon of last resort rather than a piece of standard fighting equipment.[86] In the very late antique period a small and distinctive throwing axe (the *francisca*) appears, but is clearly a Germanic invention.[87] Given that swords were probably very expensive weapons, it is possible that the axe was employed as a weapon only by the poorest of Iron Age warriors, or when nothing else was at hand. This would explain their presence amongst the models that substituted for hauls of war booty at Mouzon and Blicquy.

4.12.2 Miniature Axes and Prehistoric Axe Deposition

Collections of Palaeolithic and Neoltithic axeheads in Romano-Celtic sanctuaries in Normandy were noted by Vesly as early as 1909.[88] These pre-historic artefacts are not accidental intrusions into Roman levels, or leftovers from much earlier periods of site use, but had been intentionally collected and deposited in the Roman period. Most famously, a pit near the *cella* of the sanctuary at Essarts contained three Palaeolithic flint axes, 47 Neolithic polished axes and 35 fragments of polished axes (perhaps ritually broken), as well as other flint blades and points.[89] This phenomenon was once thought to be limited to northern France, but stone axeheads are now well documented on Roman period sites in Britain as well.[90] Bronze Age axeheads are less common on Roman sites, but

86 Thus during the second battle of Cremona in the year of the four emperors, Flavian legionaries are obliged to collect axes from the countryside to penetrate the northern gate of the city (Tac. *Hist.* 3.27).

87 Hoops *RGA* 1.549-559 *s.v. Axt* (Steuer, 1973). Hannemann (2006: 158-159) proposes that some of the axes in the Neupotz hoard are Germanic weapons. Similarly, Petrovsky (2006: 195) interpreted the flattening of the eyes of some of the Hagenbach axeheads as ritual mutilation, and as evidence that the they had been stolen from a Gallic sanctuary in which had been left as weapon dedications. It seems more likely to me that the axes had simply been flattened to enable more efficient transport, even if this flattening process would have required hot forging as Petrovsky observes. While both hoards clearly include material that was looted from a sanctuary, there is no reason to suppose that all of the material is from the same source. In any event, the dedication of weapons is really an Iron Age phenomenon, that long pre-dates both hoards. Neither hoard contains mutilated swords, scabbards or shield bosses, which are so characteristic of the rite of weapon dedication.

88 Vesly 1909a: 143-144.

89 Vesly 1909a: 87-88.

90 Lewis (1966: 47) was only aware of a few possible occurrences of Neolothic axes on British sites, but Adkins and Adkins (1985) listed 40 Roman sites, including temples. More recent literature is provided by Eckardt (2003: 41-42), who also discusses evidence for Roman activity on British pre-historic sites. In fact, the phenomenon is probably now better documented in Britain than northern France – a stark warning that trends in archaeological research can strongly influence our understanding of distribution.

this may be due to sharper scholarly focus on the Neolithic axeheads, or simply because bronze axeheads could be melted down for their metal. The Salisbury Hoard (**3.2**) shows that Bronze Age material was known and deposited at least in the late Iron Age. A late Bronze Age socketed axe and a flint arrowhead were recorded at Fesques, and a Bronze Age flanged axe was found in a Roman female inhumation near the Roman *vicus* at Bovtae.[91]

The re-use of pre-historic axeheads on Roman sites has found a fairly universal explanation. It is thought that the Romans regarded these objects as some kind of lucky charm, a theory which is supported in part by the medieval and modern tradition of using pre-historic axes as protective talismans.[92] Referred to as 'thunder stones' these artefacts were thought to appear where lightning hit the ground, and served to ward off lightning strikes.[93] It is possible that an identical superstition is recorded in a section of Pliny's Natural History on minerals and gems. Pliny describes a black and red stone that looks like an axe, is sought after by magicians, and which is only to be found where lightning has struck.[94] These stones are called '*cerauniae*' derived from Greek *keraunos* (thunder).[95] Commentators have been quick to identify the *cerauniae* of Pliny's text with prehistoric axeheads, but one must be careful in connecting them with axes from western Europe, as Pliny also states earlier that these stones come from Carmania – the countryside on the north coast of the Persian gulf.[96]

Several of the Roman sanctuary sites with prehistoric axes have also produced the bronze miniature axes described in this study. These are: Springhead (**BR49**), Richborough (**BR42**), Nettleton (**BR38**), Wycomb (**BR63**), Silchester (**BR47**), Oissel (**FR11**), Viéil Evreux (**FR20**), St. Etienne Roilaye (**FR16**) and Fesques (**FR5**). Admittedly, it is questionable whether or not the Romans would have recognised all prehistoric tools as manmade objects, let alone as axeheads.[97] Still, if prehistoric axe and wheel iconography can be used to interpret miniature wheels and axes, it is also legitimate to ask if the long tradition of axe dedications did not play a direct role as well. Do the miniature axes represent the very last stage of a continuous rite that stretches back as far as the Stone Age? The answer to this question will only be found when a better chronology of the miniature socketed axes is provided, and perhaps a direct link between the two types of deposition. Such a task would represent a major undertaking, and would require substantial

91 Mantel and Devillers 1997: 273, Cat. Nr. Surf-11 and 301.31; Marteaux and le Roux 1913: 116-117, fig. 15.

92 Merrifield 1987: 9-16, 1 1920: 366-367.

93 Merrifield 1987: 10-16; Toutain 1920: 367.

94 "*Sotacus et alia duo genera fecit cerauniae, nigrae rubentisque; similes eas esse securibus. Et his quae nigrae sint ac rotundae, sacras esse; urbes per illas expugnari et classes; baetulos vocari; quae vero longae sint, ceraunias. Faciunt et aliam raram admodum, Magorum studiis expetitam, quoniam non aliubi inveniatur quam in loco fulmine icto.*" Plin. H.N. 37.135.

95 Eichholz's 1962 Loeb translates the term with 'thunder stone.'

96 Plin. *H.N.* 37.134. On Carmania see *RE* 10.2.1955-1956 *s.v. Karmania* (Kroll, 1919).

97 Eckardt 2003: 41.

co-operation between both Roman archaeologists and pre-historians. For the moment, I would simply like to raise the possibility that there may be some kind of a link between the re-use of prehistoric axes in Roman period sanctuaries, and the dedication of miniature axes.

4.12.3. Symbolic Interpretations. Axes as Thunder, Lightning and Sky/Solar Symbols

Like wheels, it has also been proposed that model axes are symbols of a sun god or sky deity. Forrer and Green noted the use of the axe as a symbol both in pre-historic Greece and northern Europe.[98] Both also saw the axe held by Jupiter Sabazius and Jupiter Dolichenus as more recent manifestations of the same symbol that strengthen the association between the miniature axes and a sky god.[99] For Green, still more evidence of a Sabazius link was provided by the small bronze *Mithrassymbole* from Cologne (**8**) which are often associated with the god Sabazius and include miniature axes. [100] In the preceding sections (**4.11**) we saw that Green had also connected the inscribed motifs of the axe models with solar imagery. Based on their symbolic value alone, Green connected the axe models to the Romano-Celtic sky divinity, if not the Jupiter/wheel god himself.[101]

Axes have also been seen as symbols of the clap of thunder that accompanies flashes of lighting, and Hatt interpreted the axe as being iconographically synonymous with the hammer, another symbol for thunder.[102] Presumably the noise of either tool striking something was an obvious point of comparison to the sound of thunder. In the chapter on wheels (**2.8.5**), we saw how the sun was seen as the origin of lightning and thunder in the Celtic world, and so, circuitously, the axes are once again can be connected to a Celtic sky god. Thus we find that different types of model object - *Mithrassymbole*, wheels and axes - have been erroneously combined to generate a single meaning, though the archaeological contexts of all three artefact types show them all to be distinct and separate phenomena.

Though he did not draw any very specific conclusions, Forrer also linked the long history of axe cults in the Mediterranean and the model axes of Switzerland. He noted both the Minoan cult of the double-axe, and figures holding over-sized axes in European Neolithic and Bronze Age rock carvings from Scandinavia and France. He also recalled the axe carried by the lictors who accompanied Roman magistrates. While Forrer did not connect the model axes to any specific deity, he saw them as one phase in a long history of axe veneration.[103]

98 Forrer 1948: 55-6.
99 Forrer 1948: 57.
100 Green 1984a: 68 and 100.
101 Green 1984a: 99-101.
102 Hatt 1951b; Green 1984a: 182.
103 Forrer 1948: 55.

The main problem with these iconographical approaches is that the axe models cannot be connected to a specific deity or realm of worship. This point is illustrated by the inscriptions on the Allmendingen models, which show that axe models could be dedicated to different divinities. While four of the Allmendingen models are addressed to heavenly deities, who might be responsible for thunder and lightning (including Jupiter), three are not: the two dedicated to the *deae matres* and the one dedicated to Neptune. Unlike the wheel models, it is not possible to pin the axe down to the iconography of any one single deity. As a symbol, the value of the axe may have been less specific has hitherto been realised.

Suetonius records this incident in his life of Galba, which fortells his imperial destiny while he is still governor of Spain:

> *Non multo post in Cantabriae lacum fulmen decidit repertaeque sunt duodecim secures, haud ambiguum summae imperii signum.*
>
> Not long afterwards, a bolt of lightning hit the lake of Cantabriae, and twelve axes were discovered, a hardly ambiguous sign of the highest authority.
>
> Suetonius, Galba 8 (my translation).

The passage seems to recall the discovery of a pre-historic hoard of axes. The event takes place outside the north-west provinces, and Suetonius is hardly the most reliable of Roman historians, but the nature of the omen is clear. The axes are connected to lightning, but are chiefly seen as symbols of divinely bestowed authority and power. In this respect we should recall that the *fasces* of Roman provincial governors, and triumphing generals were bound together with an axe (**fig. 4.11**) – not just as a sign of authority, but also an implement of execution.[104] I do not wish to propose that the axe models are representations of the Roman *fasces*, but rather that the axe was a potent symbol of power and authority. The main symbolic value of the axe was probably as a sign of divine authority or divinely bestowed authority rather than as the attribute of a specific solar deity, or a specific heavenly phenomenon such as lightning or thunder.

4.12.4. The Axe and Animal Sacrifice

The second explanation of the axe models connects them to a specific aspect of Roman animal sacrifice. In Roman images of sacrifice, most notably in sculpted *suovertaurilia* scenes, one of the bare-chested attendants responsible for the

104 On the *fasces* and their axe see Marshall 1984 and Schäfer 1989: 221-225.

actual killing (*victimarii*) is regularly depicted carrying an axe or mallet.[105] This particular *victimarius* was known as the *popa.*[106] His task was to strike the head of the larger sacrificial victims, after which the stunned animal's throat was cut with a special triangular knife by an attendant known as the *cultularius*. Martin Henig and Graham Webster have proposed that the model axes of Romano-Celtic sanctuaries represent the axe of the *popa.*[107] More specifically, Webster saw model axes as substitutes for animal sacrifices which poorer devotees could not afford.[108]

Several terms were used to describe the axe of the *popa,* including *securis, acieris* and *sacena* (**fig. 4.11**).[109] The *securis* seems to be a general term for the axe used to kill animals, while *acieris* refers specifically to an axe made of bronze. By the Late Republican period, the *sacena* had become a non-functional emblem of priestly service. It was originally carried by one of the lictors who performed the actual killing part of the sacrifice on behalf of the *flamen dialis*. When this dirty work was taken over by the *popa* and the other sacrificial attendants, the *lictor* with the axe became a simple companion of the *flamines*, and his axe an antiquated and non-functional symbol.[110]

A togate figure with a draped head on the south frieze of the *Ara Pacis* carries an axe that has been identified the *sacena.*[111] The fact that he is wearing a toga shows that he will not take part in the actual sacrifice, and reinforces the idea that this axe was purely symbolic. The messy work was left to the half naked sacrificial attendants. The *sacena* also appears on various coins and altars as an ensign of the Roman priesthood, and is similar in form to representations of the axes attached to the *fasces* of Roman magistrates.[112] Their trapezoidal blades and the crossed cords are strikingly similar to the axe models. Finally, a number of ornate bronze axeheads have also been identified as *sacenae.*[113] In most cases they have tube-like housing from which a small blade emerges, just like the

105 Examples include the the *Ara Pacis*, the *Ara Pietatis*, the Cancellaria Relifs, and, in Gaul, the Arch at Susa. See Ryberg 1955 for these and numerous other examples. Ryberg sees a change from the use of a mallet in Republican and early imperial reliefs, to an axe in second century and later reliefs. See also Fless 1995: 73.

106 For the term '*popa*' see *ThesCRA* V.2a.III.6d.115-116 (Estienne *et al.*, 2005); OLD 1403, *s.v. popa, -ae.* specifically referring to Suetonius, *Cal.* 32.6.

107 Henig 1984: 149; Webster 1986:126 and 1986b: 61.

108 Webster 1986:126 and 1986b: 61.

109 Siebert 1999: 68-69. I leave out *dolabra* and *bipennis*. Both terms refer to tools with two functional sides, which are not represented amongst the models. *ThesCRA* V.2b.VIII.C.2.317-321 (Hölscher, 2005).

110 Siebert 1999: 71 and 132-136; Schäfer 1989: 227-229.

111 Siebert 1999: 71-72. This goes against the interpretations of Fless (1995: 49) and Ryberg (1955: 86) of the figure as one of the sacrificial attendants. Siebert refers to him as the '*flaminius lictor.*'

112 Seibert 1999: 71.

113 See Johansen 1932.

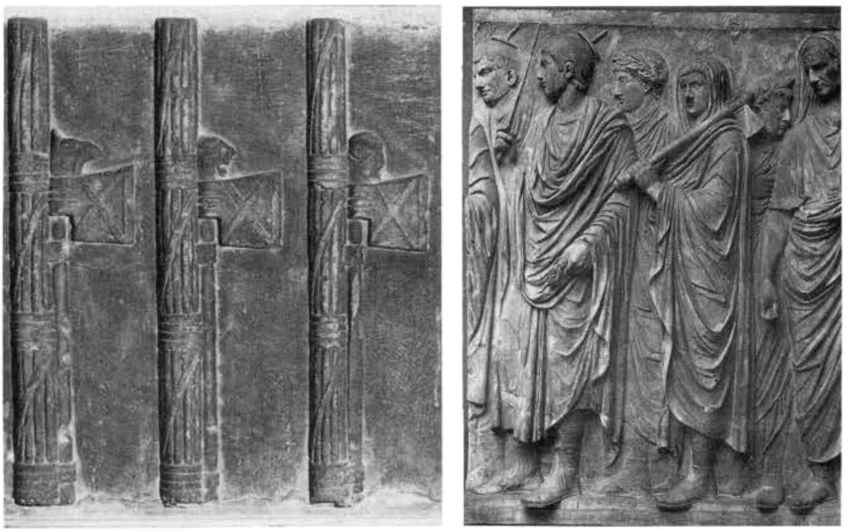

Fig. 4.11. Axes and fasces Relief in the Palazzo Massimo and the sacena on the Ara Pacis. (Left: after Schäfer 1989: pl. 75.2; right: Flesss 1995: pl. 16.1).

representations on coins and reliefs. This design is probably Etruscan in origin.[114] Highly decorative axeheads, sometimes incorporating figural representations, such as three specimens in Oxford, London and Göttingen, where the housing takes the form of the sacrificial bull, have also been interprteted as the *sacena*.[115] The important point is that a non-functional symbolic axe was involved in the Roman sacrificial rite. These axes were priestly regalia rather than functional tools.

It is unlikely that the same ritual procedures and rules applied in the north-west provinces in the pre-Roman period, or ever in non-Roman territory. It is even questionable how closely these rites would have been copied in the Romano-Celtic temples in the Roman period itself. But bulls, sheep and pigs were certainly sacrificed in Celtic sanctuaries, as bone assemblages show. Moreover, the Iron Age sanctuary at Gournay contains examples of bovine skulls and vertebrate that have been struck with an axe. Thus it seems that the axe was an appropriate implement for sacrificing large animals in the Celtic world as well.[116]

114 Johansen 1932: 112-145.

115 Siebert 1999: 72; Jessup 1970: 348. Oxford, Ashmolean Museum, London, the British Museum, (Department of Greek and Roman Antiquities Inv. Nr. 2959) and Göttingen (Archaeological Institute, University of Göttingen, Inv. Nr. M.206). The piece in Oxford is said to have been found near Canterbury in the early 19th century, but changed hands several times before finally being published. Another example was sold by Sotheby's in 1899. A bronze axe model from the fourth century B.C. Etruscan sanctuary at Bolsena has been identified by Siebert (1999:72) as a *sacena*, though to my mind it is too small to have been an piece of processional regalia. Johansen (1932: 115, fig. 2) describes it as a votive.

116 On Gournay see Meniel 1985: 140-141. On animal sacrifice in general, Brunaux 1986: 120-125.

There are two problems in seeing model axes as representing the axe of the *popa*. The first is that we do not have miniature versions of the other sacrificial implements used in animal sacrifice. Small, or even 'miniature' stone altars do exist, but there is not a single convincing miniature *lituus, patera, guttus, culter* or any of the other tools used in Roman sacrifice.[117] Even if a few examples could be found, they are certainly not likely to match the quantities of the model axes. The second problem is the fact that the dedication of model axes does not seem to be a major phenomenon in Roman Italy or indeed elsewhere in the Roman world. A neat answer to both objections would be that the use of axe models to represent sacrifices was a Celtic practice that was adopted in the Roman period as well. While Celtic sacrifice required the essential axe, it did not need the other Roman accoutrements.

Whether the miniature axes commemorated individual sacrifices, or were substitutes for sacrifices that never took place must remain an open question. But the theory need not also exclude a possible connection to the dedication of prehistoric axeheads. As both the implement that took the life of sacrificial victims, and as a sign of heavenly or priestly authority, the axe, or *sacena*, was one of the most poignant elements of sacrifice in both the Roman and Celtic worlds. It is this poignancy that the models attempted to capture.

13. Conclusion

This chapter has considered the phenomenon of miniature axes in the northwest provinces of the Roman Empire. Most of these models are composed of bronze, and were cast in a single piece, though a few miniature axeheads also exist. They are found throughout the north-west provinces and beyond. Five main types of model axes were identified, of which the most unusual (type 5) copies a socketed rather than shaft hole axe. In spite of the variety of types, the axes are part of the same ritual process. It is also possible that a series of miniature bronze socketed axeheads from southern Britain, also date to the late Iron Age and early Roman periods, but too little is known about these finds to be sure.

Axe models are most frequently found in Romano-Celtic sanctuaries. Those finds with good contexts suggest that they were used between 50 B.C. and A.D. 200, with a concentration in the first century A.D. There can be no doubt that the tradition had pre-Roman Celtic origins, as the finds of similar axe models at Stradonice show. Though the models were sometimes found in small groups, there is no evidence of mass dedication as with miniature wheels. Inscribed X's and triangles are best explained as skeuomorphs, representing the external leather

117 It has been suggested that a spiral shaped bronze stick found in the same hoard as the bronze axes from Winterthur in 1709 (**SU31**) is a miniature *lituus*. It was accompanied by 18 bronze sticks and remains of a skeleton . It is more likely that it is a fragment of a Bronze Age spiral pin or *fibula*, but Forrer (1948: 8) thought both interpretations possible. If it is a miniature *lituus*, then the 18 bronze sticks might be the rods (*virgae*) used to conduct sacrificial animals to the altar. On the use of rods in sacrifice see Fless 1995: 71-72 and Schäfer 1989: 229-231. A miniature sacrificial knife was also found in the Etruscan sanctuary at Bolsena. See Johansen 1932: 115, fig. 3.

binding or the folded metal of a socketed axe. Other symbols are probably simple decoration. The rare inscribed miniature axes show that they were appropriate gifts to various deities, and that axe models were used as part of the Roman votive ritual.

The exact meaning of the miniature axes is still uncertain. They are clearly not substitutes for offerings of life-sized axes. It is possible that the axe models are general symbols of divine or earthly authority, but they do not belong to the iconography of a single sun god, or sky deities in general. A connection to the long tradition of prehistoric axe deposition, and the occurrence of prehistoric axes in Romano-Celtic temples, cannot be ruled out. The most plausible explanation, however, is that they represent the axe used in animal sacrifice, and possibly commemorate individual sacrifices of large animals.

5. COINS

5.1. Introduction

The occurrence of coins in sanctuaries, pits or watery contexts in both the Iron Age and Roman periods is a major archaeological phenomenon that has been the subject of much recent research.[1] Once again, the overall picture is of large, high value and occasional deposits of precious metal coins in the Iron Age being replaced by smaller and more frequent deposits of low value bronze coins in the early Roman period.[2] The existence of substitutional model coins has been proposed by a number of authors for a variety of objects at different temple sites. The archaeologist's concept of a special temple coinage is a very old idea, and may have been inspired in part by the observations of anthropologists. Various modern cultures use 'fake' currencies in ritual practices, such as the Asian custom of burning specially printed 'hell banknotes' at funerals and on other special occasions.[3] In the ancient world as a whole, there is one famous instance of a particular coin type being required for a specific religious act. The Talmud required Jews making payments in the Temple (especially the yearly half-shekel temple tax) to use shekels of Tyre. The money changers whose stalls were upset by Jesus in the New Testament were presumably engaged in part in exchanging regular circulating currency for these ritually acceptable coins.[4] Outside of the study area, in his excavations of a late Roman cemetery in Egypt, Petrie interpreted a pot of blank pieces of copper foil in one grave as a substitute for the usual pot of coins.[5]

As the idea of ritual coins are deeply ingrained in archaeological thought, it is not surprising that various scholars have suggested that early Iron Age coins were first produced in sanctuaries to serve purely ritual functions.[6] The main evidence for this is the large number of coins found in some Iron Age sanctuaries, the fact that some Iron Age coin types are known exclusively from sanctuaries, and the occasional presence of production materials (dies, flan, moulds etc.) on

1 For recent bibliography on coin deposition in the Iron Age see the introduction and collected essays in Wigg-Wolf and Haselgrove 2005; for the early Roman period see Sauer 2005. Both periods are discussed by King (forthcoming).

2 Brunaux 1986: 94; Nick 2005; Haselgrove and Wigg-Wolf 2005: 17-21.

3 Comparison to the Chinese practice is made by Webster 1986: 122 (specifically on the use of model coins in antiquity) and Green 1978: 33 (on ritual models in general).

4 The Mishna *Shekalim* 4 describes the rules governing coinage and the Temple. Meshorer (1982: 7-9) has proposed that a mint in Jerusalem took over the minting of shekels when the mint in Tyre debased the silver content and eventually ceased production in the Roman period, though the idea of a mint producing shekels in Jerusalem has been rejected by the authors of RPC (Burnett, Amandry and Ripollés 1992: 655-656.) The upsetting of the money changers' tables is described in *Mt.* 21:12-14, and the temple tax appears in the miracle of the fish and the coin in *Mt.* 17:24-27.

5 Petrie 1889: 13.

6 Green 1984a: 77; Henig 1984: 22-23; Haselgrove and Wigg-Wolf 2005: 12-13 with citations of specific sites and authors.

certain sanctuary sites in Gaul.[7] There can be little doubt that Iron Age coins were sometimes cast and struck in or near some sanctuary sites, but whether or not those coins were meant exclusively for ritual purposes is less certain. Iron Age sanctuaries were frequently situated in oppida and settlements of major importance, where there was a natural demand for regular coinage to be used in the regular sense. Of more interest are the claims that certain low value objects were used as direct substitutes for offerings of real coins in sanctuaries. But the evidence for such a form of temple money in Rome's north-west provinces, for either religious or economic reasons, is both meagre and disparate.

5.2. Ceramic and Lead Jetons

In the discussion of miniature wheels, we saw how both wheels and rings have been interpreted as substitutes for coin offerings (**2.8.3**). This idea was rejected, but the same argument has been made more convincingly for ceramic discs found at Corent (Puy-du-Dôme) and Varennes-lès-Mâcon (Saône-et-Loire), and for lead discs from Cannebières (Var), Digeon (Morvillers-Saint-Saturnin, Somme) and Karden (Nordrhein-Westfalen).

Some 104 ceramic discs were found amongst the abundant late Iron Age material from the sanctuary at Corent (**fig. 5.1**). They had been cut from a variety of vessel forms in all types of ceramic fabric. They range in diameter from 15 to 100 mm, but most are between 25 and 35 mm. As such, these ceramic discs are a good match in size to the Iron Age potin and bronze coins of the late first century B.C. that were abundant on this site.[8] Other ritual material found at Corent includes massive depositions of animal bones, amphorae, and ritually mutilated weapons.[9]

Rescue excavations conducted at Varennes-lès-Mâcon (Saône-et-Loire) in 1967 uncovered a number of trenches and pits datable to La Tène III. They were filled with animal bones, very fragmentary (intentionally smashed?) pottery, and 124 round ceramic jetons similar to those from Corent. Post-holes and hearths in the same area suggest that wooden houses were also present, and it is possible that some of the pits were originally used for the storage of grain. Two pottery kilns were found 200 m away.[10] Metal finds were scarce, and there were only 39 coin finds, all of which were Iron Age and most of which were potin. Without a doubt, however, the most unusual object found on this site was a bronze coin die.[11] The ceramic jetons range in diameter from 40 to 90 mm, and a few were

7 For a discussion of sanctuaries as workshops see Delestrée 1996: 121-123, and 2005: 331-334.

8 Poux et al. 2002: 76-79, figs. 20-21.

9 Poux et al. 2002: 79-88.

10 CAG 71/4.307.61.308. (1994, Rebourg); Barthélémy 1985: 131-132. Barthélémy left the interpretation of the ceramic jetons open, but rejected the possibility that they were used either for reckoning (like medieval jetons) or as weights.

11 Grelu 1985. On the bronze die see *Gallia* 26.501 fig. 40 *s.v.* Saint-Symphorien-d'Ancelles (1968, Martin).

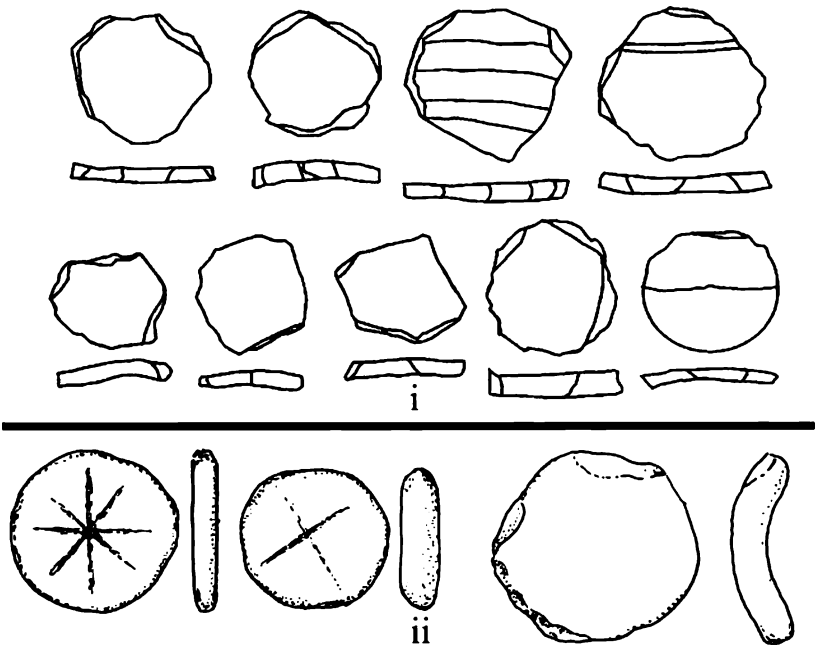

Fig. 5.1. Ceramic Jetons. i) Corent; ii) Varennes-lès-Maçon. All 1:1. (After Poux et al. 2002: fig. 20 and Barthélémy 1985: fig. 4).

incised with radial lines on one side. In one of the pits, a group of 31 jetons and a ceramic spindle whorl were found inside a ceramic container.[12] This 'hoard' may well have been a substitute for the deposition of a group of real coins. Even if the site was a settlement, and the pits used for grain storage, ritual deposition in abandoned grain pits is a well documented phenomenon.[13]

Excavations at Cannebières (Var) suggest the presence of a natural hilltop sanctuary at which votive offerings were left, but where no major architecture was present. A hoard of coins found here included obols of Marseille, Republican *denarii*, imperial bronzes up to about A.D. 150, and 29 lead discs. Many of the lead discs had been scratched with two or more radial lines, which Brun and Michel saw as representing the spokes of wheels, of which the discs were representations.[14] This proposal seems unlikely to me, as many of the discs have been simply clipped from sheets of metal, and have flat and irregular edges. They are far from the perfect circular form that is essential to the miniature wheels. The obols of Marseille with which the discs were found also have a radial pattern on the reverse, and it seems more likely that this pattern is what the scratched lines

12 Barthélémy 1985: 140, fig. 7.

13 Brunaux 1986: 93-94. This topic has been explored in depth for Iron Age Wessex by Hill (1995).

14 Brun and Michel 1996; *CAG* 83/1.45.5*.348-349, fig. 298 (Brun, 1999).

on the discs were meant to imitate. In this instance, the lead discs seem to have been used to add volume to a single large coin deposit.

More coin-like bronze and lead tokens, and bronze coin impressions (see below, **5.3**) have been found at the sanctuary of Digeon (Morvillers-Saint-Saturnin, Somme).[15] Outside the east side of the sanctuary's main *cella* wall, a deposit of 13 lead discs and a second deposit of eight rectangular pieces of bronze were found within one metre of one another. Both the round *tesserae* (Dm. c. 15 mm and Wt. c. 4g) and the rectangular bronze strips (c. 15 x 10 mm), had been stamped with the same pair of dies (**fig. 5.3.i**), depicting a chaotic star-like motif on one side, and a rough square design on the other.[16] Chemical analysis of one of the lead discs from the first hoard revealed a silver content of 8.6%, leading Delplace to suggest that an element of value had been added to this discs by mixing a real silver coin into the alloy.[17]

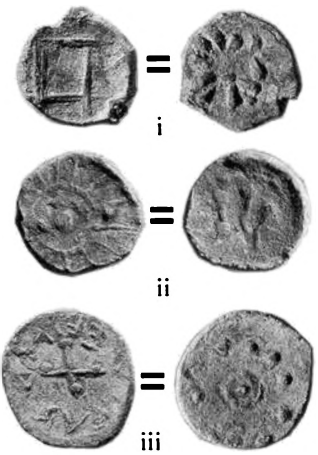

Fig. 5.2. Lead tesserae from Scattered Finds at Digeon. Approximately 1:1.(After Delplace 2001: figs. 1, 3 and 7).

In addition to these two deposits, a further 33 *tesserae* were found on the surface or in disturbed contexts at Digeon, of which 29 were lead and four bronze.[18] These finds included specimens struck by the same dies used in the first two hoards, but at least eight further dies are also attested.[19] Variations on the theme of a box and the chaotic star-like patterns recurs in a number of forms (*e.g.* **fig. 5.3.ii**), including circles, dots and crosses for which an astral or solar significance is conceivable. One unique example (**fig. 5.iii**) included an inscription, which reads SVR (mirrored text) directly across from EFV (normal text). A further twenty specimens were too worn or fragmentary to discern a design, but were probably similar *tesserae*.[20]

Even more impressive are the reports of 'many thousands' of lead discs (**fig. 5.2**) found during the partial excavations of a sanctuary at Karden, on the Mosel.[21] The discs from this site range from 8 to 28 mm in diameter, with most being around 10-13 mm, and weigh an average of 2.2 g. Some had been cut from sheets of lead, while others seem to have been crudely cast without a mould by dripping molten metal onto a flat surface. The surfaces of some have been hammered

15 Delplace 1986.

16 The scale of the illustrations in Delplace 2001 is not clear. The illustrations in fig. 5.3 have been reduced slightly to match the dimensions of the tesserae illustrated in Delplace 1986, which are presumably 1:1.

17 Delplace 1986: 180.

18 Delplace 2001: 89-91. This number represents the total of the objects catalogued by him.

19 Delplace 2001: 89-91, types 2-9.

20 Delplace 2001: 91.

21 Nickel 1999: 153-157, photo plate 22.

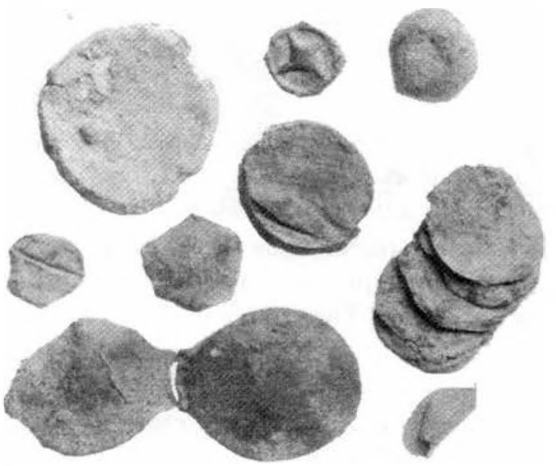

Fig. 5.3. Lead Jetons from Karden (after Nickel 1999: pl. 22).

or slashed, and at least five had been struck with a single die that formed a star-shaped impression on one side. The discs were found scattered throughout the site, but high concentrations in particular contexts suggest that they were originally dedicated in groups. A series of four discs joined together by corrosion give the impression that they had been left standing in stacks. Nickel noted that the average size of the pieces (11-13 mm) corresponds to the diameter of the *denarius*, and proposed that the discs were meant as substitutes for real coins. She observed that the silver colour of unoxidized lead would have made them stand out, and recalled the special nature of lead in Roman ritual and magic.[22] No Iron Age coins were found at Karden, but most of the 111 Roman coins recovered dated to the first century A.D. Many of the earlier coins had also been ritually damaged.[23] It is possible that the slash marks on some of the lead jetons were meant to imitate the ritual mutilation of the coinage, a phenomenon that can be observed on Iron Age and early Roman coins at a number of sites within the study area. The practice is best understood as a form of ritual destruction, analogous to the bending and breaking of dedicated weapons.[24]

In all five instances, the case for substitutional votive offerings is strong. The main question is whether we are dealing with substitutes for individual coins, or substitutes for group deposits. The groups and stacked discs from Karden, the two groups from Digeon, and the 29 pieces found together at Cannebières seem to support the latter possibility. The ceramic discs from Corent, though concentrated around the temple, were scattered throughout the *temenos* and were composed of a variety of ceramics and varied in size.[25] This variety seems to point to ongoing and individual activity. Thus it is less clear whether we are dealing with substitutes for high value elite or communal ritual dedications, or those of simple individuals. A good case can be made either way, and as all of these finds belong to that transitional period between personal and communal ritual, it is possible that the ceramic and lead jetons served both functions simultaneously.

22 Nickel 1999: 156-157.

23 Wigg 1999: 147-150. On the mutilation at Karden in particular see Wigg-Wolf 2005.

24 Aubin and Messonier 1992; Kiernan 2001; Wigg-Wolf 2005; de Jersey 2005.

25 Poux et al. 2002: 76, fig. 37.

5.3. Coin Impressions and Wax Coins

Any doubt that the lead and ceramic discs discussed above were actually model coins of some kind is dispelled by a second group of coin models found at Digeon. In addition to the crude lead and bronze *tesserae*, this temple site also yielded 15 impressions of coins on thin round bronze discs. [26] Only six of the impressions were complete or well preserved enough to allow for the identification of the coin. Two impressions, found together, seem to represent the obverse and reverse of the same coin – a common *as* of the emperor Claudius showing Minerva advancing with a spear and shield on the reverse. Three more impressions from Digeon used the same obverse.[27] The only other two identifiable types were the reverse of a *dupondius* of Antonia, showing a togate Claudius pouring a libation, and another reverse from a *dupondius* of Claudius depicting Ceres.[28] It is just possible that these impressions are the outer shells of lead or iron filled forgeries (see below, **5.4**), but it seems unlikely, as one would expect traces of the lead or iron filling to have been visible in at least one instance. The coin impressions from Digeon almost certainly represent a tradition of producing model coins in the early first century A.D., that was parallel to the dedication of the lead tokens discussed above. It is more interesting that the impressions imitate bronze rather than silver coins.

In Britain, Bagnall-Smith has proposed that seven thin and irregularly shaped scraps of bronze sheet with coin impressions on them from Woodeaton were used as temple coins.[29] Only three of the coins used to make the impressions at Woodeaton could be identified, and all were the obverse sides of coins of third and fourth century emperors: Numerian, Constantine and Crispus.[30] Unlike the impressions from Digeon, the Woodeaton examples have an irregular shape, with the sheet of metal continuing far beyond the edge of the impressed coin. They also reproduce very low value bronze denominations, and given their much later dating, it is hard to reconcile them with the finds from Digeon. I would suggest that the Woodeaton fragments are actually clippings from votive plaques, with the coin impressions simply serving as a decorative motif. Like some kinds of jewellery, votive plaques, were frequently produced with pre-made matrices. At least one example (**fig. 5.4**) seems to show a row of dots just outside the impression, perhaps indicating further decoration on an originally larger composition. It may

26 Jobic 1986: 107, fig. 4.56-59; Delplace 1986: 181-183.

27 Identified by Delplace as BMC I.185 no. 149. The obverse legend reads: TI. CLAUDIVS. CAESAR. AVG. P.M. TR. P. IMP., while the reverse simply bears the figure of Minverva and the letters S.C. It is unclear from Delplace's report whether or not the three obverses are from the same die as the first pair, or merely reproduce the same type.

28 According to Delplace BMC I.188 no. 166, pl. 35.8, legend: TI.CLAUDIUS.CAESAR. AVG. P.M. TR. P. /S.C.and BMC I.183, no. 137 pl. 35.1, legend: CERES AVGUSTA, /S.C. In neither instance do his illustrations allow for confirmation.

29 Bagnall-Smith 1995: 189 and 201, and 1999: 40.

30 Kirk 1949: 44, nos. 21-23, fig. 9.5.

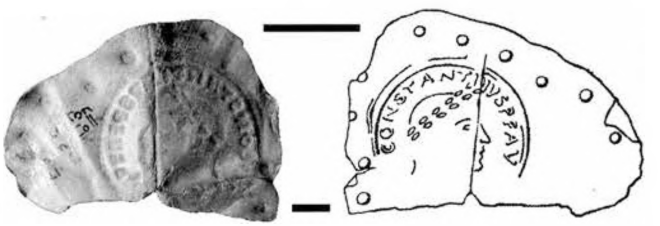

Fig. 5.4. Impression of a Coin of Constantine on a Bronze Leaf from Woodeaton 1:1.
(Photo by the author, Ashmolean Museum, drawing from Kirk 1949: fig. 9.5.)

be significant that the impressions all bear the busts of emperors, for whose safety vows were regularly made on both a personal and state level.

The other obvious use for coin impressions is as a mould for casting coins in another metal. This is clearly not the case with the impressions from Digeon or Woodeaton, but Bagnall-Smith suggests than an object found at Great Walsingham served as mould for producing votive coins made of wax. It is a roughly rectangular sheet of lead (43 x 35 mm, th. 7 mm), into which the reverse side of a *denarius* of Marcus Aurelius had been impressed, that was found in the same area as numerous objects that suggest the presence of a temple at Great Walsingham.[31] In one corner of the lead sheet, a funnel had been engraved connecting the edge of the sheet with the side of the coin impression. A thin channel runs from the opposite side of the coin impression to the edge of the sheet, and was identified by Bagnall-Smith as a feature that "allowed surplus molten material to escape." As the melting point of lead is too low to allow for casting another metal in the mould, and Bagnall-Smith came to the conclusion that this object was half of a bivalve mould used to produce votive wax coins.[32]

Even more impressive than the Great Walsingham mould is an enormous and complete mould found in a field near Schadeck, in the Belgian province of Luxembourg.[33] This mould is also made of lead, and consists of two large rectangular sheets of lead (13.25 x 28.5 cm, th. 5-8 mm) in which the obverse and reverse of a single *denarius* of Nero has been impressed 11 times in four columns.[34] The impressions in each column are joined by an engraved channel and end in funnels leading to the top of the mould. The edges of the side with the obverse impressions have been folded upwards to allow the two halves of the mould to be joined firmly together. Like Bagnall-Smith, Hollenfeltz also noted that the mould would have been useless for casting in most metals, and suggested that it might have been used with a specific alloy of lead and tin. He envisaged an alloy with a density closer to that of silver than pure lead or tin, but with a melting point low enough that it would not have fused with the mould.[35] This would, of

31 Probably RIC 3.48-52.

32 Bagnall-Smith 1999: 49-40.

33 Hollenfeltz 1920: 5-9, pl. 1.7. The mould is still on display in the Musée Archéologique, Arlon today.

34 Judging by Hollenfeltz's description the denarius is RIC I .55. (p. 153) issued in A.D. 64-5.

35 Hollenfeltz 1920: 9.

course, have required a forger who was remarkably well versed in metallurgy, if indeed such an alloy exists. Alternatively, we might imagine the Schadeck mould being used for the production of votive coins in wax.

While the idea of votive coins is attractive, wax coins could also have been used in part of the process of manufacturing plated counterfeit coins with a bronze centre. In the *cire-perdu* technique of bronze casting, a wax model is embedded in clay to form a mould. When the clay is fired to harden the mould, the wax evaporates out of it. The resulting clay mould can then be used to cast bronze, but is usually destroyed when the finished cast object is removed. As ancient counterfeiters were presumably interested in producing large numbers of coins, it would certainly have been expedient to have a permanent mould for producing the wax models. The Great Walsingham mould could have provided wax models that were instantly ready for impression in clay, complete with spout for the release of both air and wax in the next two stages of the casting process.[36] The possibility of a votive wax currency cannot be ruled out, but nor can the possible functional nature of the moulds from Great Walsingham and Schadeck. This observation leads us to the possible use of plated coins as votive substitutes for real gold and silver coins.

5.4. Plated Coins

Counterfeit gold and silver coins, where the gold and silver consists of nothing more than a thin layer of plating hiding a base metal centre, are known from all periods and areas of antiquity.[37] Plated coins are usually considered to be the products of private forgers, but the high percentage of such plated coins amongst the 151 Iron Age and 152 Roman coins found in the Romano-Celtic sanctuary at Hayling Island (Hampshire) has been seen as evidence that some plated coins were produced specifically to be used as votive offerings.[38] The proportions of plated coins in the assemblage from Hayling Island are certainly high when compared to finds from settlements or other sanctuaries.[39] Of the Iron Age coins, 75% of the gold, and 46% of the silver coins were plated.[40] All 36 of the Roman denarii found at Hayling Island were plated. The denarii were all either Republican or of first century A.D. emperors, with the only exception copying a coin of Septimius

36 On the *cire-perdu* technique see Bol 1985. The other use for wax coins is in the production of electrotype copies, but this technique was obviously unknown to the Romans.

37 Crawford 1968 and Cottam 2001.

38 Henig 1984: 22-23; King (forthcoming). On the coins from Hayling Island see Briggs, Haselgrove and King 1992: 44-52; Webster 1986: 123.

39 For comparisons with other sites see Briggs, Haselgrove and King 1992: 48-52. The next closest temple seems to be Harlow, where 23.5% of the Iron Age coins were plated (Haselgrove 2005: 413).

40 Briggs, Haselgrove and King 1992: 44; King (forthcoming), note 46. Haselgrove (2005: 386) evaluating the Iron Age coins slightly differently, states that 61.8% of the Iron Age silver coins are plated.

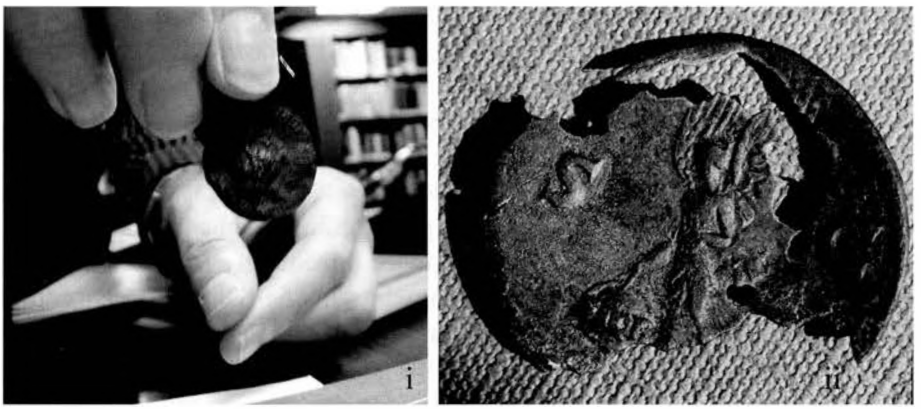

Fig 5.5. A denarius with an Iron Centre Suspended by a Magnet ii) Copper Plating Shell of a counterfeit coin from Bath. 2:1.
(i: Author, Cabinet des Médailles, Bibliothèque royale de Belgique; ii: author, Roman Bath Museum, Bath).

Severus.[41] The Hayling Island coins, like most plated ancient coins, all had copper alloy centres (*subaerati*) below the thin layer of gold or silver, but there are two other types of plated coin for which a case for ritual use can be made. The first are copies of Roman coins with iron centres, and the second are copies of Roman copper alloy coins with iron or lead centres and copper alloy plating.

Plated coins with iron centres (*subferrati*) are relatively rare compared to those with copper centres.[42] Such coins are easily recognised, not only because they are attracted to magnets (**fig. 5.5.i**), but also because the iron centre and the plating corrode at strikingly different rates, often resulting in swollen lumps of iron oxide and large bulges in the plated surface. Though iron was certainly a cheaper metal than copper, these forgeries must have been exceedingly difficult to produce as iron has a higher melting point than gold, silver or copper and is a far less malleable metal. Moreover, coins with an iron core would have been considerably lighter than those with a copper core, and would have been subsequently much easier to recognise as counterfeits. A few plated *denarii* and *asses* with iron cores were found at Mouzon, but I am otherwise not aware of any temple where such coins were found in large numbers.[43]

Plated forgeries of Roman copper alloy denominations with centres made of iron or lead are an equally puzzling phenomenon.[44] As the lead or iron usually corrodes much faster than the copper plating, examples are known where only the thin outer shell of the plating survives. This seems to be the case with at least one

41 Briggs, Haselgrove and King 1992: 48, table 6.

42 The term *subferrati* is modern. On plated coins with iron and lead centres see Boon (1988: 111-113) and van Heesch (1987).

43 These coins are stored in the collection of *Les Amis du Vieux Mouzon* in the village of Mouzon, but are not mentioned in any of the publications.

44 The issue of copper plated forgeries is discussed briefly in Kiernan 2001: 25.

specimen from the sacred spring at Bath (**fig 5.5.ii**), and the remote possibility that the Digeon impressions are such shells was mentioned above. In the case of these low denomination coins, one is forced to ask whether or not the time and effort involved in producing them actually matched their face value. Imitations of copper coins struck with crude dies are very common, and must have been a much more cost effective method of production.

One satisfying explanation for both iron plated coins and the low denomination copper plated coins is that they were produced specifically to be used as ritual models. The fact that they were copies somehow made them more appropriate for the spiritual world, and was more important than any economic consideration. In the case of coins with iron centres, we might imagine the special ritual associations of iron as playing a role in making the models more appropriate gifts for the gods.[45]

On closer inspection, however, the arguments for plated coins as special votive coins are not particularly strong in any of the cases described above. While the percentage of plated coins at Hayling Island is indeed high, there is no common type or die-link to suggest local manufacture. It seems more likely that the large numbers of plated coins were caused by good coins being removed for spending purposes and the forgeries being left behind.[46] Alternatively, it may have been appropriate for individuals to dedicate otherwise useless forgeries in the temple. Perhaps the temple itself provided a testing service. This certainly seems to have been the case in the Classical and Hellenistic Greek world, where a number of inscribed temple inventories list false coins. A law inscribed on a stele from the Athenian agora decrees that coins found to be false should be defaced (to prevent them re-entering circulation), handed over to the Boule, and finally dedicated to the Mother of the Gods. This presumably refers to her shrine in the Bouleuterion known as the Metroon.[47] Is it possible that a similar system was in place in the Romano-Celtic world? If so, it would certainly explain the diversity of the plated coins from Hayling Island.

Copper denominations with iron centres have been studied by van Heesch, who recorded the find spots of 71 pieces in Belgium, Germany, Luxembourg, France and Austria.[48] Though he does not specify where certain coins were found on any given site, it seems unlikely that all of these coins are from temples or ritual deposits. Given the high quality of the coins, van Heesch concluded that they were produced as forgeries in Gaul.[49] In spite of the technical difficulties involved in producing them, the token value of coined copper must have been

45 Aldhouse-Green 2002.

46 Haselgrove 2005: 387; Brigg, Haselgrove and King 1992: 46.

47 This law and the temple inventories listing false coins are described by Stroud 1974, esp. 173-178.

48 van Heesch 1987: 53-58.

49 van Heesch 1987: 60-62. Conversely, the large high number of early third century specimens in Austria, were seen by van Heesch as a sort of money of necessity that was officially tolerated; a situation not dissimilar to the use of struck Claudian copies in the first century A.D.

high enough to make them worthwhile. Other iron plated coins (including those that copy gold and silver coins) still pose a number of major questions, not the least of which being how they were made, but it seems unlikely that their primary function was ritual. The plated coins with iron centres and the copies of low denomination copper alloy coins do not seem to have been recorded in large numbers at any sanctuary site that I am aware of.

5.5. The '*minimissimi.*'

In 1929, a hoard of 1,646 bronze coins was found underneath a mosaic floor in the bath-house at Lydney Park.[50] Some of these coins, termed *minimissimi* by Wheeler, had an average diameter of 2.75 mm, and an average weight of 0.057 g. All were crude copies of Roman bronze coins with the legend FEL TEMP REPERATIO that were struck in the middle of the fourth century A.D, but were much smaller than any of the official issues.[51] The copies were so small, that it was even hard to imagine them as a practicable currency of any kind. In his study of the coins from the Brean Down temple in 1961, and later in his article on counterfeiting in 1980, Boon raised (and immediately dismissed) the possibility that these tiny coins had been produced specifically to be used as votive offerings.[52] More recently, the interpretation of the *minimissimi* as a votive coinage has been put forward again by Webster and King.[53] A review of Boon's arguments, however, is sufficient to disprove this speculation.

In fact, the *minimissimi* are nothing more than the last in a long line of imitations of reducing size and increasing crudity. Though small to modern eyes, equally tiny coins have been produced in other periods of both antiquity and the modern era. Moreover, coins of a similar size have since been documented on non-ritual sites as well as temples.[54] Boon further argued that the *minimissimi* would have been kept in bags in large numbers rather than traded individually. These bags, the '*folles*' mentioned in various late antique texts, could either be opened to remove a few coins or traded in their entirety. By the mid-fourth century, the nature of the tiny denomination within the bags was relatively unimportant.[55] In fact, the Lydney Park hoard was actually surrounded by dark earth suggestive of an organic container.[56] The high concentration of the tiny coins at Lydney Park

50 Wheeler 1932: 116-129; Casey and Hoffmann 1999: 101-124.

51 On these fourth century copies in general see Brickstock 1987. The main point of contention regarding these imitations is that of dating, with early arguments placing them in the post-Roman Dark Age. This idea has long since been rejected, and it is fairly universally recognised that the *minimissimi* are nearly contemporary to their prototypes, and date from the middle to late fourth century A.D.

52 Boon 1961: 196 and 1988: 140-142. Also Brickstock 1987: 22-22 and 25.

53 Webster 1986: 123; King (forthcoming).

54 Boon 1961: 196; Boon (1988: 141, note 216) cites specifically baths at Canterbury, a villa at Great Staunton (Huntingdonshire), and a hut at Richborough.

55 Boon 1988: 142. On the *follis* as a bag of coins see Melville-Jones 1990: 118-119 s.v. follis.

56 Wheeler 1932: 116.

and Brean Down sanctuaries does not speak for special temple currency, but rather for the well known tendency of pilgrims to dedicate the smallest denominations they had on them.[57]

5.6. Conclusions on Model Coins

Of the several object types discussed above, only the ceramic and lead tokens from various temples (**5.2**) and the coin impressions from Digeon (**5.3**) can really be convincingly classed as votive models. In these cases, the supposed votive coins seem to be a phenomenon of the late Iron Age and the early Roman period. The fact that the ceramic and metal jetons are frequently found in groups implies that they were meant to replace the high value type offerings of the Iron Age. Unlike war booty, coins would still have been widely available after the Roman conquest. The need for these substitute coins must have been generated by changing economic circumstances or shifts in social structure rather than an acute lack of the real thing. As the various jetons were all found at sites where real coins were also abundant, it may have been that imaginary coins were sometimes preferred to real ones, or that they were used by dedicants who genuinely could not afford to dedicate actual coins.

57 Woodward 1992: 69.

6. CERAMIC AND METAL VESSELS, LAMPS, TRIPODS AND STANDS, MINIATURE TABLEWARE

6.1. Ceramic Vessels

At the outset of this project, it was decided to exclude miniature ceramic vessels from the study material, assuming that there would be far too much material to document in such a large study area, and that ceramics were in any case the domain of specialists. But when the established definition of a model is taken into account (**1.2**), it seems that there are far fewer finds to consider than had been originally thought. While archaeological literature constantly describes a large number of ceramic vessels as 'miniature' or 'votive,' relatively few can be classified as direct reductions of life-sized prototypes, and even fewer as non-functional objects.[1] Though the same basic pattern of larger vessels is sometimes followed on a smaller scale, this may be the result of habit rather than intentional copying. If one is accustomed to making large pots of one shape, why develop a different form when producing smaller vessels? Pots that are merely very small do not fit within out definition of a ritual model object, even if they do not seem to have had the same utilitarian purpose. To illustrate this point, and the problems associated with miniature ceramics, we may briefly consider the miniature vessels found at Uley (Gloucester), Verulamium (Hertfordshire) and Karden (Nordrhein-Westfalen).

At Uley, at least 94 miniature hand-made cups of low quality fabric were recovered (**fig. 6.1.i-iii**). They came from contexts dating from the early third to late fourth centuries A.D., with a large number from late fourth century contexts.[2] All are under 6 cm in height, and Woodward and Leach identified seven types within the entire collection. Their first type, which includes only five vessels, are supposed to be imitations of larger forms found on the site.[3] As a parallel to the Uley finds, the excavators cited 15 buff ware pots, all under 7 cm in height, that were found in a series of votive pits inside the so-called 'triangular temple' at

1 Documented miniature vases include ten vessels from the sanctuary at Octon, Hérault (Soutou 1969: 126-130, fig. 12); a deposit of small bottles in an uncertain, but possibly domestic context at Soissons, Aisne (Querel and Querel 1999: 145-146, fig. 2); a 'thumb pot' from Chester (Green 1978: pl. 119 and 1981: 262, no. 3c, fig. 4); a tiny pot from Corbridge (Green 1978: 58 Corbridge no. 40 pl. 119 and 1981: 262, no. 5e, fig. 4); a single pot from a burial at Verulamium (Green 1976: 206 Cat No. Verulamium 19, pl. 28a); and, most recently, at least 100 miniature bottles from the excavation of a temple site on the Martberg on the Mosel (Nickel and Thoma 2005: 369-370, fig. 25). Though described by Miranda Green as votive models, R.A. Hall has shown that two amphorae from Norton, North Yorkshire now in the Malton Roman Museum are actually modern tourist souvenirs from Spain (Green 1978: 65, cat. no. Norton 1, pl. 120; Hall 1983: 262, fig. 7).

2 Henig 1993b: 144, table 5.

3 Woodward and Leach 1993: 140-145, figs. 117-120.

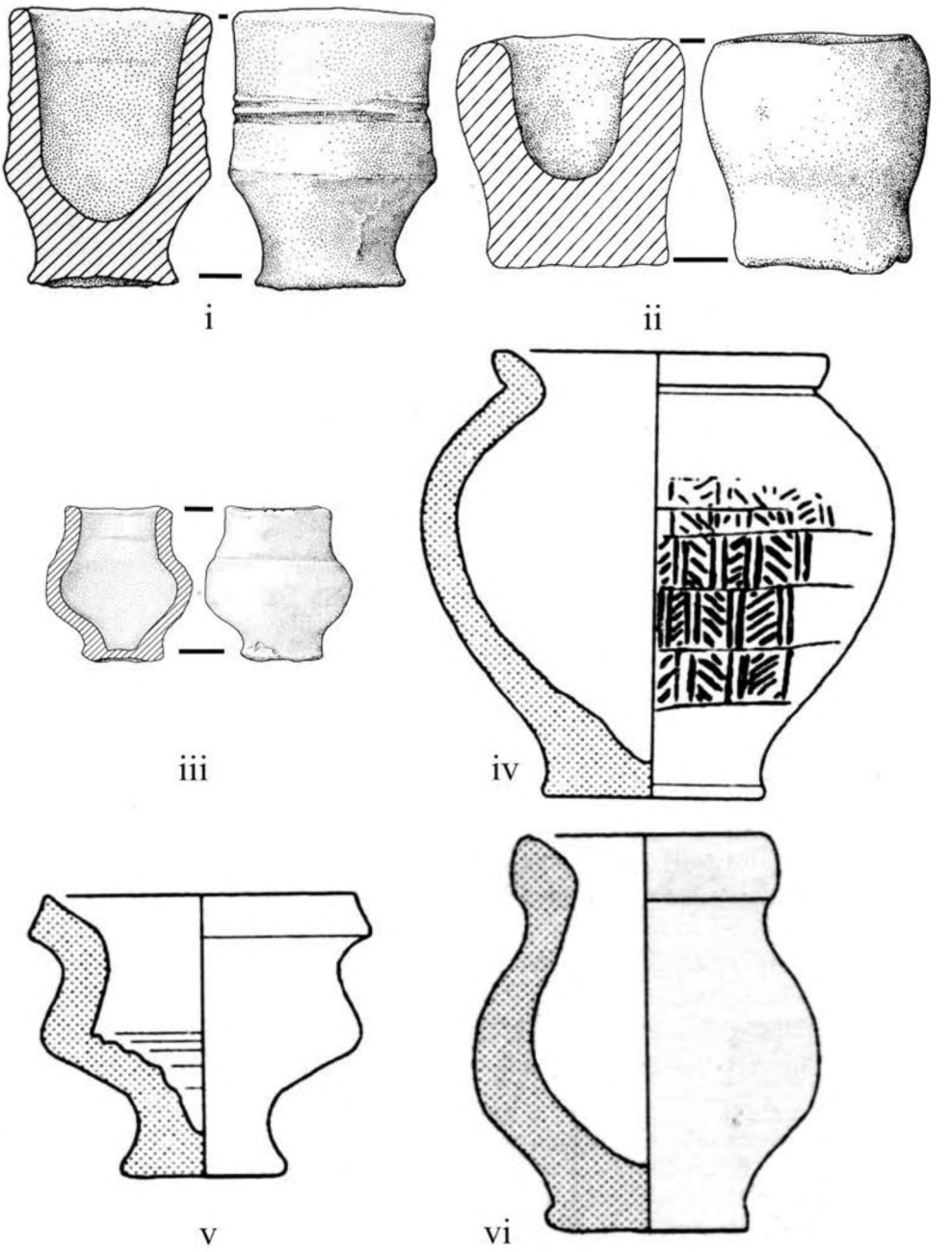

Fig 6.1. Examples of Miniature Votive Ceramics Vessels. i-iii) from Uley; iv-vi from Karden. All 1:1.
(Adapted from Woodward and Leach 1993: fig. 117 and Nickel 1999: pls. 66-68).

Verulamium. These vessels are somewhat earlier than the Uley pots, with the pits in which they were found probably being dug and filled between A.D. 150 and 200.[4] In neither case, however, do Woodward and Leach specify what life-sized forms these miniature pots copy, and I do not see any close parallels amongst the other normal pottery forms found at Uley.[5] In later excavations of *insula* 14 at Verulamium, Frere found a few small vessels that were almost identical to those from the triangular temple deposits, and identified them as *unguentaria* rather than votive miniatures. In this case, the context was clearly domestic, with at least two of the *unguentaria* having been re-used as crucibles.[6] Since then, a number of even smaller vessels of not dissimilar forms have also been found at the industrial site of Broomhey Farm in Kent.[7]

Very similar to the finds from Verulamium are 275 miniature pots found in the sanctuary at Karden (**fig. 6.1**).[8] These vessels were classified by Nickel into six types, with a number of subtypes, and range in height from 3.5 to 7.8 cm. Most were composed of Belgic ware, with a few including slip or basic external decoration. One was found containing miniature spearhead inside it (**3.9**), and a few seem to have been ritually mutilated, with the lip being entirely broken off or, in four instances, with a hole punched in the base. These actions might be seen as rendering the vessels useless, but the broken edge of at least one vessel with an intentionally damaged rim had been worn smooth by later usage.[9] On the basis of comparisons to finds from the Wederath burials, Nickel dated the miniature pots from Karden to the late first century A.D.[10] Miniature plates, with diameters between 6 and 8 cm were also found, but were far fewer in number.[11] Some of the larger pots and plates from Karden are very like the miniatures in their overall shape and proportions, but as Nickel notes, the exact details could not always be copied on such a small scale.

The primary function of all ceramic vessels was to serve as a container, and it is probable that most perishable material that was dedicated in sanctuaries (*i.e.* food and drink offerings) would have been left in pots or wicker receptacles. Even if small ceramic vessels do broadly copy standard forms, this does not necessarily mean that they were meant to take their place, or that they were the

4 Wheeler and Wheeler 1936: 117-119 and 191-192, no. 45, fig. 32.45 and pl. 59.2-4; Green 1976: 206, cat no. Verulamium 19, no. 7; Henig 1984: 149, fig. 72.

5 Leach 1993: 219-245.

6 Frere 1972: 326-328, nos. 882-885, fig. 125 and 366 nos. 15-16, fig. 141 and pl. 52a.

7 Miles 2004: 329 nos. 79-86.

8 Nickel 1999: 104-110, pls. 66-68. Nickel's discussion of the '*Miniaturgefäße*' from Karden includes baby flasks, purely on the basis of their size. She also suggests (1999: 76 and 118) that a number of small plates may have been used as lamps. This study is a particularly useful starting point for 'miniature ceramic' as it gives numerous parallels both from the region and elsewhere. On the temple site at Karden see **5.2.**

9 Nickel 1999: 106-107, fig. 91.

10 Nickel 1999: 108.

11 Nickel 1999: 70.

offerings of Roman potters who were presenting miniaturised examples of their work.[12] One would need to find very exact copies of a very specific vessel type in a ritual context to support such a hypothesis. It is likely that smaller amounts of food or drink were sometimes dedicated when larger quantities could not be, but the miniature pots themselves do not provide us with direct evidence for this. It is quite natural for a potter producing small vessels to follow the same basic guidelines he or she employs when producing larger ones.

It is more likely that most miniature ceramic containers from sanctuary sites were used to hold fixed rations of incense, unguents, or oils and perfumes needed in certain cult rituals, such as the anointing of cult statues.[13] The presence of small plates and incense burners in the same contexts as the miniature cups at Verulamium seem to support a functional hypothesis. The contexts of the pots from Karden are less clear, but the site has also yielded more than 200 incense burners.[14] Though the miniature vessels from Uley, Verulamium and Karden are too small to have served as cups at proper meals, they may have been used for a ritual sip or drink, just as tiny paper cups are used for communion wine in some Protestant churches today. One might also imagine them being used to drink water drawn from a sacred spring.[15] Alternatively, they may have held representative scraps of food and drink from a ritual meal, or the offerings from the first fruits of a harvest. This tradition is, of course, best known from the Greek world where it was practised both on an individual and a state level.[16] Finally, it is remotely possible that they held candles. Though the form of the pots differs from known Roman candle holders, the identification of ceramic candle holders is admittedly difficult. At least the diameters of the miniature pots are close to those candle holders identified by Eckart.[17]

A scientific examination of miniature ceramic vessels for residual traces of their contents would undoubtedly reveal much about their function. Nickel noted close similarities between the Karden miniature pots and certain vessels from burials, and the relationship between ceramic grave goods and votive offerings will need to be taken into account in any future study. The small size and crudity of the miniature pots speaks for a low value, and perhaps single or very short term usage.[18] It does not, however, reveal what that usage actually was.

12 Green 1976: 43.

13 Evidence for this practice in the Romano-Celtic world has been found at Allmendingen, where a scatter of glass perfume bottles was found on the floor of a *cella*, next to the base of a cult statue. See Martin-Kilcher 1996: 25-29.

14 Nickel 1999: 111-114, pls. 73-79.

15 Nickel 1999: 108-110.

16 Burkert 1985: 66-68.

17 Eckart 2002: 246, figs. 113-116.

18 Nickel 1999: 108-110.

6.2. Miniature Lamps

Ceramic and metal lamps, and sometimes candleholders, are very common finds in both burials and sanctuaries. It is tempting to imagine them being dedicated by visitors in much the same way that candles are sometimes burned in Christian churches today.[19] Just like the tiny vessels discussed above, large numbers of lamps have been described as miniatures. The rural sanctuary at Lachau, Drôme, must be considered as one of the most important sites in the study area to provide evidence of ritual lamp use. Poorly published excavations in the early 20th century and the late 1960s uncovered nearly 3,600 ceramic lamps and lamp fragments. Of these, Stéphane Bleu has described about 16% as "*lampes miniatures indigenes.*"[20] Frustratingly, he does not give exact sizes or mention whether or not there were traces of burning around the wick. Going by his illustrations, they are indeed small, between 4 and 6 cm in total length, but they are not drastically smaller than the other lamps found on the site, which range from 6 to 8 cm in length. There is no reason to suppose these miniature lamps could not have been burned. While it is easy to imagine a development in ritual practice at Lachau from large to small lamps, this does not mean that the smaller lamps were substitutes or models. Presumably the light generated by lamp offerings was the most important part of the ritual. Given the vast quantity of material, further examples of miniature lamp finds cannot be discussed here, but as with miniature ceramic vessels, they need to be studied in conjunction with finds from burials.

Metal lamps are far less common than ceramic lamps, and Miranda Green has recorded two miniature bronze lamps from Britain. The first is 28 mm long, 12 mm wide, and comes from the Romano-Celtic temple at Caerwent.[21] It appears to be solid, with a pierced handle and a phallus in relief on the face of the lamp. The size, piercing and imagery of this object seem to suggest that it was meant to be worn. Its shape is not dissimilar to the leaf-shaped bronze pendants suspended from Roman military equipment and horse gear, and the phallus suggests an amuletic function.[22] The second miniature bronze lamp is from Corbridge, but no information is available either on the exact find spot or size.[23]

6.3. Miniature Cauldrons

We may now return to the 46 model cauldrons that were part of the Salisbury hoard (**fig. 6.2**), which also included miniature shields (**3.2**) and a miniature socketed axe (**4.3**). The miniature cauldrons were relatively simply made by hammering a piece of round sheet metal outwards. They range between from 18 and 70 mm in diameter, with an average diameter of 42 mm. The average

19 On the occurrence of lamps in sanctuary sites and burials see Eckart 2002: 96-115.

20 Bleu 2003: 499-503.

21 Green 1976: 183, Caerwent 20, pl. 28d.

22 On leaf shaped pendants see James 2004: 88-93, figs. 41-42.

23 Green 1978: 56, Corbridge 6. In the Corstopitum Museum.

Fig. 6.2. Miniature Cauldrons from the Salisbury Hoard. (The photos on the top are by the author. The drawings on the bottom are from Stead 1998: fig 9. Reproduced with the kind permission of the trustees of the British Museum).

depth of the cauldrons is 13 mm, but there seems to be a sharp divide between very shallow and deep specimens. Each model cauldron has two parallel rings, or sometimes just holes, near the rim. The rings vary from simple piercings with wire slotted through them, to doubled ring systems and raised edges with perforations (**fig. 6.2.**) The rims of some cauldrons are thickened by folding, or are followed by an incised line on the outside surface. Stead interpreted impressions and scratches found on the inside of some of the cauldrons as tool marks left over from hammering.[24] One wonders, however, if some of these small scratches might not be usage marks, caused by something being ground or mixed inside the tiny cauldrons. Small patches of metal have been used to repair two of the cauldrons in antiquity, a trait observed on some of the miniature shields in the hoard as well. These repairs not only suggest use, but may also indicate that the miniature cauldrons and shields were contemporary.

24 Stead 1998: 115.

Fig. 6.3. Miniature Bronze Cauldron from Tarland 1:1. (After Callendar 1915: fig.2).

Stead noted that there are no known life-sized British Iron Age cauldrons to which the models might be compared, mentioning only two comparable cauldrons from the La Tène deposit, though he also noted that one of these was almost hemispherical in shape.[25] For better comparanda, one must look to mainland Europe, where one of the best typologies of Celtic and Roman metalwork was established by Eggers in 1951, in his study of imported metal vessels in eastern Germany and Scandinavia. The deeper Salisbury cauldrons correspond to Egger's types 4 and 5 - common Celtic cauldron forms of the late La Tène period.[26] The main difference is the lack of a row of rivets in the body, presumably because the miniature cauldrons are composed of a single piece of bronze, and the suspension loops of some of the miniature cauldrons that are formed by piercing raised sections of the rim. The shallower miniature cauldrons from Salisbury do not seem to find close parallels in Eggers' classification system.

Stead saw two miniature cauldrons from the so-called Batheaston hoard as the closest parallels to those from the Salisbury hoard. This group of artefacts was purchased by the British Museum in 1989, and is thought to have been illicitly excavated on a site in south Wiltshire by metal detectorists. Apart from the miniature cauldrons, it contained antiquities ranging from about 1,600 to 300 B.C. – a long range of dates comparable to the Salisbury Hoard.[27] If the cauldrons are contemporary to those of the Salisbury Hoard, then that range must be extended forwards by at least another 200 years. Stead also mentioned two miniature cauldrons from Grampian and Lincolnshire, which copy Roman cauldrons.[28] Another miniature cauldron, with a diameter of 3.8 cm was found by workmen along with a Roman spearhead at Woodchurch, in Wirral, Cheshire in 1923.[29] Finally, a miniature cauldron from Scotland (**fig. 6.3**) was found in a sand pit in the early 20th century in Tarland, Aberdeenshire, and originally contained a human molar tooth and 12 quartzite pebbles. The same pit had produced a number of small finds, including discs of glass paste and bronze fibulae.

25 Stead 1998: 115-116.

26 Eggers 1951: 159, types 4-5, pl. 2.

27 On the Batheaston hoard see Stead 1998: 120-122.

28 Stead 1998: 117. He does not give citations. The Grampian miniature cauldron may simply be a mistake for that found at Tarland (also described in this chapter). The Lincolnshire find is probably from that published by Petch (1958: 99, fig. 2 and pl .2, *non vidi*).

29 JRS 12.249 Roman Britain in 1923. Cheshire, Woodchurch (Taylor and Collingwood).

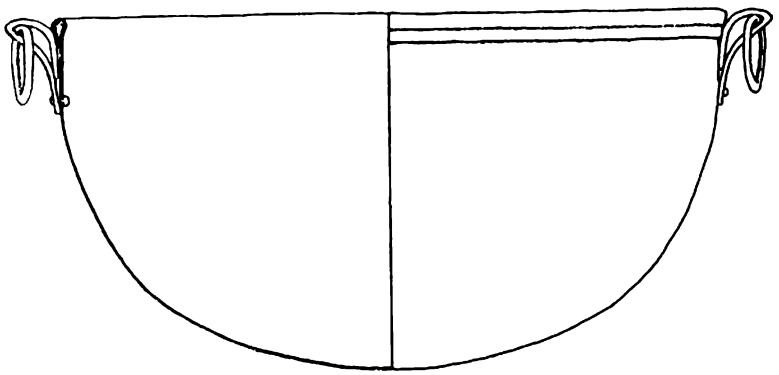

Fig. 6.4. Poundbury Miniature Bronze Cauldron. 1:1 (Farrar 1952: fig. 1)

Callander proposed that these finds came from a disturbed burial dating to the first or second century A.D.[30] While the high and straight sides are reminiscent of Roman period 'Westerland' cauldrons, the depth of the body is closer to late La Tène prototypes.[31] Whether or not the sand pit contained a burial or a votive deposit will probably never be known.

Perhaps the closest parallel to the Salisbury cauldrons is an object described as a miniature bronze hanging bowl from Poundbury in Dorset (**fig. 6.4**).[32] It was found out of context in an army trench dug in 1943, but the area is known for its Roman cemetery. The same trench also produced a miniature iron axe-head (**BR41.**). Like the Salisbury cauldrons, the Poundbury bowl has a thickened rim, and two suspension rings. It also has similar suspension rings attached to two loops that are bolted on just below the rim. With a diameter of 85 mm, and a depth of 47 mm, it is best compared to the larger and deeper Salisbury cauldrons that copy Egger's types 4 and 5.

As a whole, miniature cauldrons seem to be rare, but as Stead notes, the miniature cauldrons in the Batheaston hoard would not have been recognised as such had it not been for the more complete examples in the Salisbury hoard. It is perhaps not unreasonable to hope for more parallels to materialise in the near future.

Life-sized cauldrons of sheet bronze are frequently found in ritual contexts in the Iron Age, especially in watery deposits and wells.[33] In Irish and Welsh folklore, magical cauldrons with regenerative powers are a recurring motif that may reflect past rites involving the same vessel.[34] Strabo describes how the Cimbri conducted

30 Callendar 1915: 203-206, fig. 2.

31 *E.g.* Eggers 1951: type 6/7. For more recent bibliography on the Westerland cauldrons see Künzl 1993: 231-247.

32 Farrar 1952: 98-99, fig 1; Green 1976: 201.

33 Ross 1967: 31 and 227; Green 1986a: 145-148 and 1998.

34 Green 1998: 63-68.

human sacrifices in which the victim's throat was slit above a cauldron, and also how they sent Augustus their most sacred cauldron as a hostage in a peace treaty.[35] Life-sized cauldrons must have been extremely valuable and practical objects. Amongst other things, they were used to cook the meat of sacrificial victims that was consumed in the large scale feasts that also typified Celtic society.[36] They certainly belong to the same category of prestige dedications as war booty or golden torques. Had the 46 cauldrons of the Salisbury Hoard been life-sized vessels, they would have been an immensely valuable sacrifice. If the Salisbury hoard does belong to the end of the Iron Age, then a fairly good case can be made for use of both the cauldrons and shields as substitutional votives. Why some are damaged and others repaired is a point against this interpretation, and a mystery that still needs to be solved.

6.4. Miniature Tripods

There is less doubt about the function of miniature folding tripods, of which at least eight are known on a number of sites throughout the north-west provinces. Most of these objects are about 10 cm in height, and are replicas of large folding tripods with curved legs on which lion heads are mounted. At least five have such similar dimensions that they must have been produced in the same workshop. They have been found in graves, villas and in one possible temple. They were probably produced in the late second and throughout the third centuries A.D.[37] It is most likely that the miniature folding tripods served to support candles, lamps and perhaps even small dishes in domestic contexts. They were by no means votive substitutes for the larger tripods they represent, and their form must be considered as purely decorative.[38] A series of contemporary bronze candle holders with identical, though non-folding, bases seem to confirm this function.[39]

6.5. Miniature Enamelled Bronze Stands

A series of at least 20 four-legged bronze stands (**fig. 6.5.ii-iii**) are traditionally considered along with model objects in discussions of votive activity.[40] The small bronze alloy objects are usually decorated with colourful enamel, and include a large circular opening on the top. They seem to have come in groups of decreasing size, ranging from 7 to 1 cm in height, and stacked on top of one another. In a few instances two of the levels survive together, but most of the individual stands merely have the four holes on

35 Strabo 7.2.3. and 7.2.1.

36 Brunaux 1986: 83-84.

37 Klatt 1995: 420-430. The individual models are listed in the catalogue of Klatt (1995: 501-504, nos. M1-M7.)

38 Klatt 1995: 429.

39 Klatt 1995: 557-560, Appendix 1. See also Eckardt 2002: 253-254.

40 Green 1978: 33.

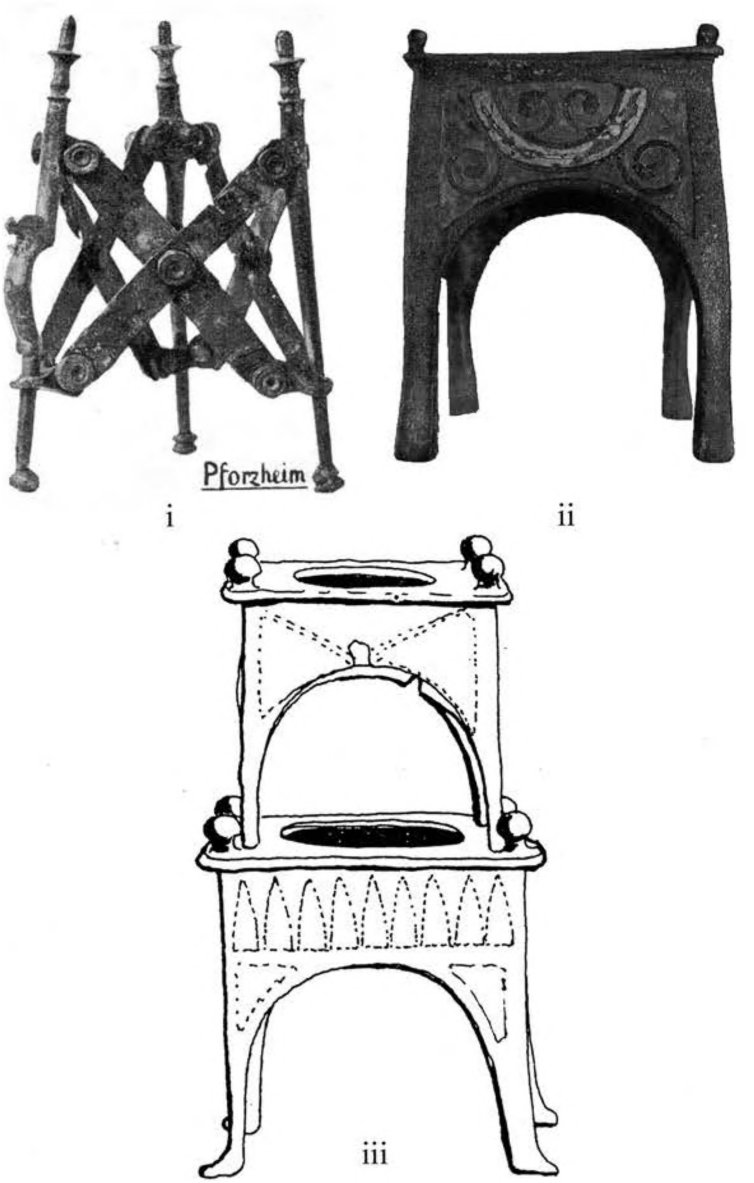

Fig 6.5. i) Folding tripod from Pforzheim, ii) Enamelled stand from Rheinzabern iii) Enamelled stand from Caerwent 1:1.
(After i: Wagner 1911: fig. 128, ii: Author, Landesmuseum Speyer; iii: Green 1975: fig. 4. 43b).

the upper surface where the next level was meant to be added. Apart from two examples in Rheinzabern and Cologne, both of which may well be imports, all of these strange objects have been found in Britain. Find spots include temples (*e.g.* Brigstock), but also military sites.[41] The stands have been variously interpreted as miniature tables, stools, or even miniature altars, with the enamel decoration representing the garlands draped around actual altars. Green noted that an example from Silchester was found in association with a miniature pot, and suggested that the stands may have been used as supports for tiny vessels, but this does not explain the stacking.[42] Perhaps the most convincing explanation is that put forward by Butcher, who argued that the stands were used to hold candles. The different levels of a stand could be removed as the candle burned down, either to measure time or to mark the different stages of a ritual.[43] As they copy no obvious life-sized prototype and have a plausible practical function, it is best not to describe these objects as 'models.'

6.6. Miniature Lead-Alloy Tableware

The final group of miniature objects to be discussed in this chapter are known both in the north-west provinces and elsewhere in the Roman world. They consist of sets of miniature tableware, furniture and cooking gear in a lead or tin alloys. Groups of these miniatures are have been found both in graves and temples, of which the most important are undoubtedly from the grave of the 15 year old Iulia Graphide at Brescello, and a votive deposit in the temple of Venus at Terracina.[44] Similar groups, usually with no proper provenience, can be found in museums throughout the world.[45] The largest group of these objects in the study area comes

41 For a list of model stands see: Green 1975: 64 nos. 42-47; and 1981: 258-260, nos. 4a, 5a and 17c-e. To this we may add a small example from the finds at Great Walsingham (Bagnall-Smith 1999: 35, no. 27, fig 3.4), and the Rheinzabern model (Stupperich and Thomas 2003: 40-41, no. 55 pl. 10.) The model from Cologne was purchased in the 19th century. (Green 1981: 260, note 38, Römisch-Germanisches Museum, Cologne Inv. Nr. 733). Several complete stands and fragments have also been recorded by the Portable Antiquities Scheme with the find ID's: SF4427 and SF4428 (both Stanham Apsal, Suffolk), SWYOB-C78757 (Stanford, Lincolnshire) and NARC-E42213 (Wadenhoe, Northamptonshire) which is perhaps the best preserved example and incorporates two complete tiers. A fragmentary square stand in tile from a Roman tile factory at Crookhorn, Hampshire has also been compared by Henig to the bronze stands (Henig 1989: 83-85, fig. 31). Though this object has similar patterning on its sides, I find it unlikely that it belongs to the same class of object as the copper alloy stands. It has eight legs and is significantly larger, with an upper surface of 15 x 15 cm, and only a very small central hole.

42 Green 1981: 259.

43 Butcher 1977: 49-50; Eckardt 2002: 263.

44 On Brescello see Degani (1951/2) and on Terracina see Barbera 1991. Further bibliography on other finds can be found in Martin-Kilcher 1996.

45 A large group can be found in the Albertinum in Dresden, and originally comes from the Sigmaren collection of Egyptian antiquities. A few pieces can be seen on display in the Royal Ontario Museum.

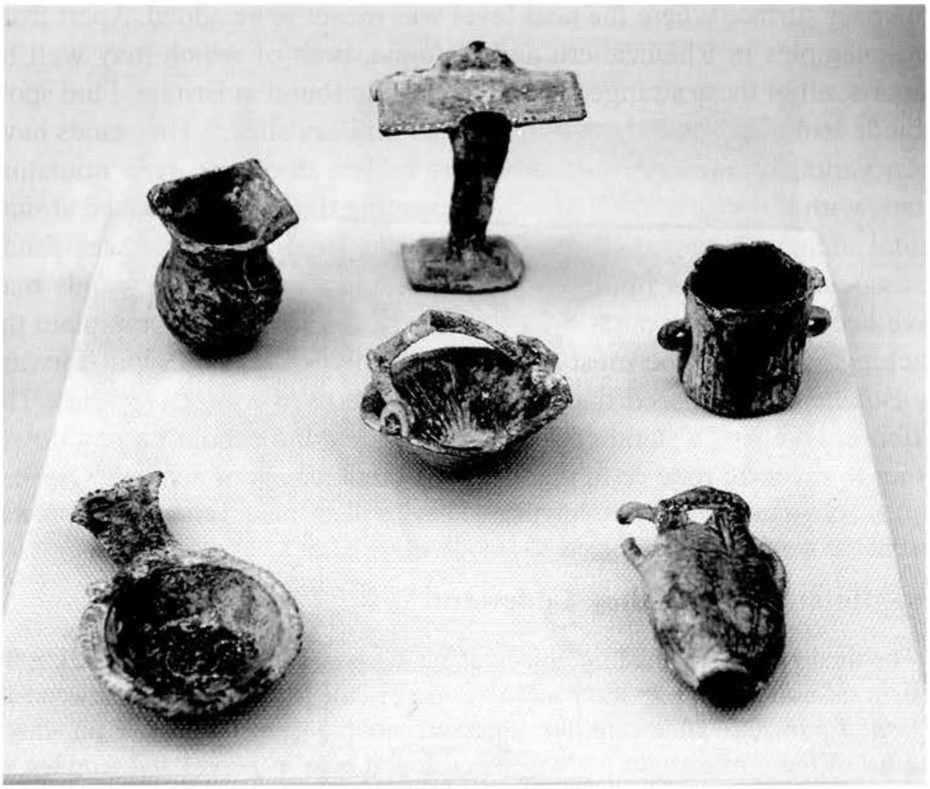

Fig 6.6. Miniature Lead Tableware from Vénejean.
The amphora on the bottom right is roughly 4 cm long.
(Musée des Antiquités Nationales, St. Germaine-en-Laye. Photo: S. Faust).

from what is probably a disturbed burial in Vénejean, but the sanctuaries in Altbachtal, near Trier, and at Allmendingen have also yielded examples. Finally, a single piece was found out of context in Trier Pacelliufer. These fascinating objects have hitherto been only poorly studied, and this section will do no more than list those specimens found in the study area, and discuss their interpretation.

The largest group from the north-west provinces was uncovered in the late 19th century excavations at Vénejean, near Montbrun-les-Bains, la Drôme, France. The report on these excavations by M.G. Lafaye does not give the specific find spots of the six miniatures, but in all probability they came from a disturbed burial, as numerous intact burials are known in the area.[46] The miniatures reproduce a patera with a broad handle, an amphora, a jug with a large square mouth, a cylindrical vessel with two handles and vertical linear decoration, a flat bowl with a broad rim, rilled walls and a large pivoting handle, and, finally,

46 The excavations were described in a communication by M.G. Lafaye to the June 24th 1903 meeting of the Societé Nationale des Antiquiares de France. See Durrieu 1903: 262-269.

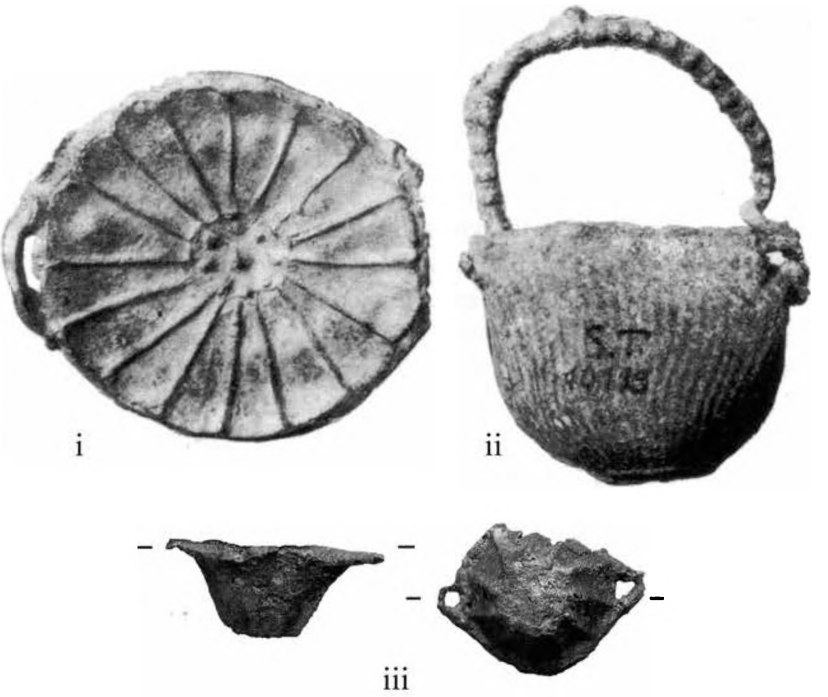

Fig 6.7. Miniature Table Ware. i-ii) Platter and Bowl from Altbachtal; ii) Trier Pacelliufer. All lead alloys, 1:1 (i-ii: After Gose 1972: pl. 139.28 and 30; iii: Author, Landemuseum, Trier).

a small headless figurine carrying a large rectangular platter. A similar standing figure with the head preserved was found at Terracina.[47]

The two lead-alloy miniatures of the same type (**fig. 6.7.i-ii**) were found in the enormous temple complex at Altbachtal in Trier.[48] The first consists of a round platter, (Dm. 55 mm), with two handles, one of which is missing. The surface is decorated with radial lines. The form is roughly the same as the two Allmendingen platters (see below), and is also to be found amongst the miniatures from Terracina.[49] The second is a representation of a deep vessel with rilled walls and a large pivoting handle that is similar to the one on the shallow bowl from Vénejean. It was made in two pieces that were subsequently joined, and finds an exact parallel in a piece from Brescello.[50] Another very badly damaged miniature, with no context, was found in Trier Paccelliufer (**fig. 6.7.iii**).[51] It is a small bowl

47 Barbera 1991: 17-18, fig 9.

48 Gose 1972: 47-48, pl. 139.28 and .30.

49 Barbera 1991: 25, nos. 19-20, figs. 22-23.

50 Degani 1951/2: pl. 1 (middle row on the far left).

51 RLM Trier, Inv. Nr. HWU 770a.

with, a broad rim and two horizontal handles. It too finds an exact parallel amongst the Terracina miniatures.[52]

Of far better quality, though undoubtedly belonging to the same group of objects, are two miniature platters found near one of the *cellae* in the Romano-Celtic temple complex at Allmendingen.[53] Both are round, and have a diameter of about 42 mm, and two handles. They have been analysed by X-ray fluorescence and found to be composed of tin with a small portion of lead.[54] The outer edges of both pieces are decorative, with figural relief scenes in the centre. The first shows Actaeon's encounter with Diana, and the second a cock fighting scene.

The centre of the first platter (**fig. 6.8.i**) depicts three figures, but the bottom half of the figure on the far right is badly corroded. Only the upraised right hand

Fig. 6.8. Two Platters from Allmendingen. 1:1. (After Grüter 1976: 103-104).

and the head can be made out, but a bow and perhaps the remains of a tree branch also seem to belong to this figure, whose identity as Actaeon is secured by the word ACTHVS next to his head. On the left, below the word ACTHVS, are two naked female figures. The one on the far left kneels, faces the right and holds an upturned vessel in both hands. She must be a nymph, or personification of the spring in the second figure is bathing. The identity of the central female figure is given by the inscription DIANA below her feet. The goddess is half crouched, facing left, with her head turned towards Actaeon and her left hand raised. The scene corresponds to several other depictions of this famous mythological event in Roman Art.[55]

52 Barbera 1991: 26-27, no. 23, fig. 26.

53 Grüter 1976.

54 Grüter 1976: 102.

55 LIMC I.454-469 *s.v.* Aktaion (1981, Guimond). The Allmendingen platter is no. 118a in the LIMC catalogue.

In the centre of the second platter (**fig. 6.8.ii**) are the upper torsos of two men facing one another. Below them, in the centre of the scene, are two cocks, of which the one on the left is biting the lowered neck of the one on the right. The human figure on the right, who holds a stick in his right arm, raises his hand in triumph and looks toward the figure across from him. The man on the left, who is bearded, strikes his head with his upraised right hand, presumably a gesture of grief for the lost cock, fight and perhaps the bet.

There is little controversy over the function of such miniature lead-alloy objects. Both Degani and Barbera agree that they were children's' toys.[56] Their presence in the grave of an adolescent girl at Brescello supports this interpretation. In the rite of passage that marked the transition from childhood to adulthood, Roman girls would dedicate their toys either to Venus or in the family lararium, and this may explain the presence of these models in the temple at Terracina.[57] Martin-Kilcher also connected the models with childhood, but was uncertain whether they were actually functional toys. She classified them as '*crepundia*' – protective amulets that were symbolic of the childhood of girls. They were not meant to be played with, but were made and kept in anticipation of their eventual dedication prior to the marriage of the girl.[58] The presence of certain miniature objects in the burials of both girls and older women, including at least one vestal virgin, meant that these objects served primarily as symbols of an incomplete life, and of a marriage that was never obtained.[59]

Whether they were functional toys or symbols of a premature death, these miniature lead or tin objects are a badly unexploited source of information about Roman daily life and tableware. I have not attempted to compare these miniatures to the known silver vessels of late antiquity, though their value as comparanda should be obvious.[60] The reproduction of food on some of the dishes and platters of some of the miniatures also reveals something about Roman dining habits. It is perhaps significant that they largely reproduce metal rather than ceramic vessels. As such, they are reproductions of the most luxurious tableware, and it is well worth asking whether the families of the Roman children who possessed toys representing these vessels actually had the life size version at home. Not unlike the plastic dolls and toys of the modern world, these miniatures seemed to have allowed for an element of fantasy. In any case, the presence of these objects in ritual contexts is secondary to their function as toys, and as such, they do not fulfil the requisite definition of a votive model.

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56 Barbera 1991; Degani 1951/2.

57 Degani 1951/2: 18-19; Barbera 1991; 31-33. For the various references to the dedication of children's toys in the ancient world see RE III A 2 (1929) *s.v. Spielzeug* 1774-1778, esp. 1775.1-10. (Hug, A.) and Marquardt 1886: 43-44 (girls) and 123-124 (boys).

58 Martin-Kilcher 2001: 69.

59 Martin-Kilcher 2001: 67-73.

60 The rilled walls found on some of the miniatures can also be found in life-sized vessels catalogued by Eggers (1951: 164, pl. 6.44-48) which he dates after A.D. 160.

7. *VARIA*: JEWELLERY, OTHER TOOLS, VOTIVES RELATING TO TRAVEL

The major recognisable groups of miniature and model votive offerings have now all been discussed. Only a few minor groups and individual objects remain to be considered. None are as common as the finds dealt with previously, and none form a uniform type. The ritual function that has been ascribed to these finds is seldom convincing, and it seems that some may not even have Roman or Iron Age dates.

7.1. Model Jewellery

Instances of possible votive models in the form of personal jewellery are surprisingly rare, especially considering the frequent use of real dress accessories as votive offerings in the Roman period. The most common types of personal adornment found on sanctuary sites are *fibulae*, hairpins and fingerings, all of which must have represented very personal dedications. It is not unreasonable then to expect models or miniatures to sometimes have taken their place.

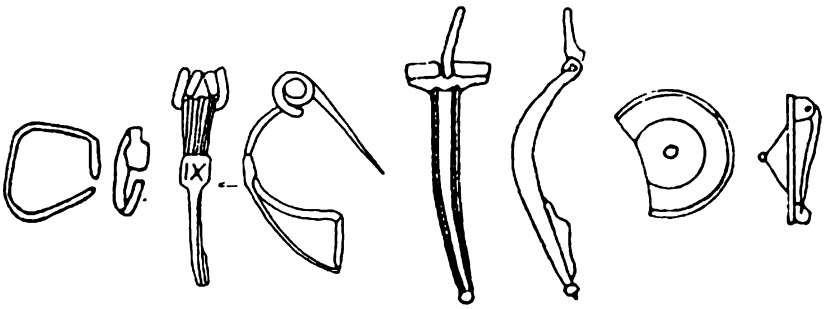

Fig. 7.1. Supposed Miniature fibulae from the Temple at Jublains. 1:1. (After Naveau 1997: pls. 12 and 13).

Fibulae, like miniature pots and lamps, are often described as miniatures when they are simply small functional examples. The dedication of life-sized *fibulae* in large numbers is a well documented phenomenon in both the Iron Age and Roman periods.[1] A case in point is provided by the finds from the temple at Jublains (Mayenne, **fig. 7.1**), where several of the *fibulae* recovered were considered too small to have been wearable.[2] In fact, these objects are all finely made, and even smaller examples of the same types can be found in other non-ritual contexts.[3]

1 For an overview of the dedication of fibulae see Teegen 1999: 259-275.

2 J. Naveau, *pers. comm.* Jan. 3rd 2007. For the catalogue of *fibulae* from Jublians see Naveau 1997: 250, fig. 12.5. I am extremely grateful to monsieur Naveau for providing me not only with a list of possible miniature *fibulae* from Jublains, but also for sending a copy of the publication.

3 For instance, the round *fibulae* on the far right is actually larger than some of the examples of the same type illustrated by Riha. *E.g.* Riha 1979: nos. 1571, 1574, 1594, pls. 56-60.

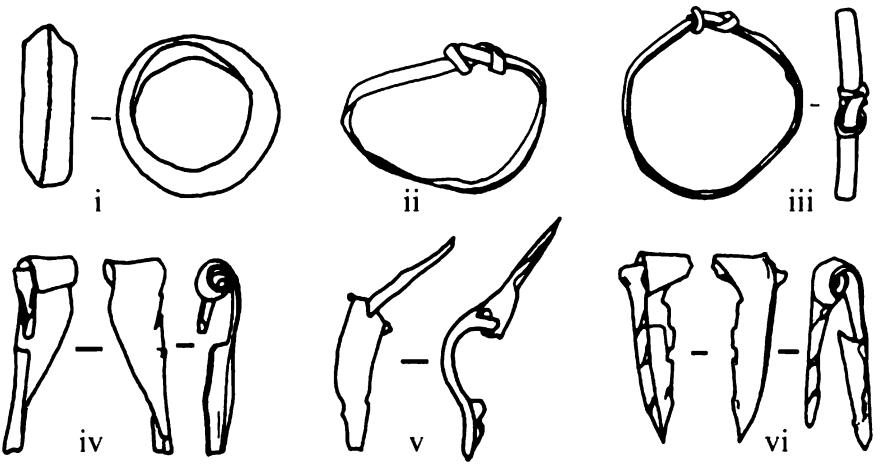

Fig. 7.2. Model Jewellery in Bronze from Digeon. 1:1. (After Jobic 1986: pl. 4-5).

Presumably small *fibulae* were simply used to fasten lighter garments or to support the clothing of small children and babies.

The status of certain types of jewellery from the sanctuary at Digeon is much less clear. Some of the bronze *fibulae* found here had been produced by twisting thin strips of bronze into the rough shape of a *fibula* (**fig. 7.2.iv-vi**).[4] While not significantly smaller than the real *fibulae* found on the site, these models were obviously non-functional. Two types of model rings were also identified at Digeon. Some were made by twisting thin pieces of copper wire into a circle, with a knot forming the bezel (**fig.7.2.ii-iii**), and others consisted of plain bronze rings, which were crudely made, but potentially wearable (**fig. 7.2.i**).[5] It has been suggested that some of the plain fingerings found at Uley were also made specifically to be used as offerings. Martin Henig wrote that 'the extreme flimsiness of some of the rings does suggest a trinket bought at the temenos shop, perhaps as an offering.'[6]

It is quite plausible that some of the jewellery found at Digeon and Uley was manufactured specifically for votive use. The presence of real and functional personal adornment at both sites does seem to suggest that the motives of the manufacturers were economic. In the case of the Uley fingerings, however, one must be cautious. The fact that an object is described as being a poor quality local production does not necessarily mean that it was a votive model. None of the fibulae from the same site were anything other than functional.[7]

4 Jobic 1986: 99-104, pl. 4.24-34.

5 Jobic 1986: 104, pl. 5.47-48.

6 Henig 1993b: 174.

7 Butcher and Bayley 1993: 157.

7.2. Other Miniature and Model Tools

Apart from miniature axes (**4**) and *Mithrassymbole* (**9**), both of which are coherent groups, there are references to miniature and model tools throughout the study area. But none of these finds form a large consistent group in the same way that the miniature axes and *Mithrassymbole* do.

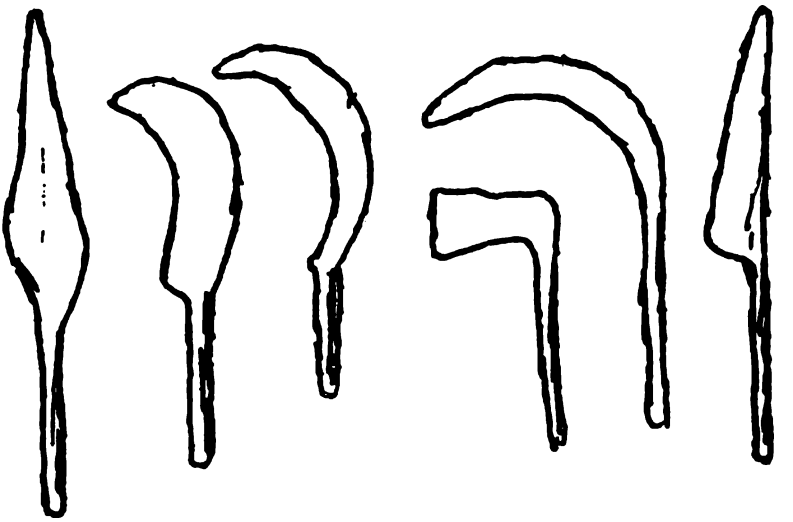

Fig 7.3. Lachau Iron Tools. 1:1. (Adapted from Welti 1956: 51).

7.2.1. Group of Miniature Tools from Lachau

The only group of miniature tools found in a sanctuary of which I am aware comes from one of the many late 19th century excavations at Lachau (Drôme). This site has already been discussed in relation to the large quantities of miniature lamps found there (**6.2**). The miniature iron tools were not published until 1956, and even then the exact number of the known models was not given. The six miniatures illustrated (**fig. 7.3**) include three miniature scythes, or possible pruning knives, (L. 50, 47, and 48 mm), a miniature knife with a triangular blade and long handle (L. 59 mm), a flag shaped axe (L. 32.5 mm, see also **FR21**), and a miniature spearhead or possibly a drill bit (L. 66 mm, see also **3.9.1**).[8] Without more exact information on the find spot, it is difficult to say anything more about the Lachau models. Apart from the spearhead or drill bit, all seem to relate to agricultural activity, though the axe and the knife might also be seen as sacrificial implements. It will be recalled that the sanctuary at Lachau was a natural sanctuary, with no known structures and this may be significant. A comparable miniature bronze scythe was found at Walton Court (Buckinghamshire) but may well belong to the

8 Welti 1956: 51-52. The models are also mentioned by Bleu 2003.

Mithrassymbole type grave goods.[9] As they are made of iron, and are very crude, the Lachau miniatures are definitely not related to the *Mithrassymbole.*

7.2.2. Wooden, Stone and Lead Mallet Heads

Bourgeois and Deyts have proposed that wooden and stone hammers represent the dedications of craftsmen's tools, made in the medium of their work, but both acknowledge the role of these tools in the iconography of Sucellus and Vulcan.[10] The smithing hammer, with a short haft and wedge-shaped nape, is an attribute of Vulcan, the god of smiths. In the Roman west, the long hafted mallet is one of the main attributes of the Celtic god Sucellus, whose name literally means 'the lucky striker.'[11] For this reason, loose bronze miniature representations of both mallets and hammers may be nothing more than the missing pieces of bronze figurines representing one or the other of these two divinities, or dedications made in their honour. For example, Morlet records the discovery of a bronze figurine of Sucellus and its detached bronze mallet in Vichy (Allier), but for some reason that is not stated the museum was only able to acquire the separated attribute and not the statuette.[12]

Three cylindrical wooden hammer heads (L. 8, 7.5 and 6 cm) and a matching grip (L. 18 cm) have been found in the springs Source des Roches at Chamalières (Auvergne), and two wooden mallet heads (both L. c. 12 cm) were found in 1977 at Bourbonne-les-Bains (Bourbonne).[13] Dumonent and Romeuf suggested that the Chamalières hammers were functional tools that were re-used as votives. Wooden hammers may well have been used in carpentry, for instance to nail in wooden pegs, just as soft rubber hammers are still used in carpentry today. But given their cylindrical form, it is also possible that these objects were connected to Sucellus.

A more unusual collection of perhaps 40 or so lead hammer-shaped plaques was found in the hot spring and bath complex at Uriage-les-Bains (Isère) in the early 19th century. Today these objects are known only from an old photograph in the Musée Dauphinois.[14] They are one-sided representations and were undoubtedly meant to be mounted on a wall, each has a slight outward bulge in the middle where the cylindrical shaft enters the casing, and a head with a wedge shaped nape. Both the hammer heads and shafts of the undamaged examples range in length from 10 to 20 cm. In one instance, a rectangular plaque connects the heads of two of the hammers to form a sort of *aediculum*, with the two hammers serving

9 Farley, Nash, and White 1981: 62-63, no. 36, fig. 4.26.

10 Bourgeious 1991: 165. Deyts 1983: 189.

11 On Vulcan see LIMC 8.283-298 *s.v.* Vulkan (E. Simon, 1997); Brommer 1973. On Sucellos: LIMC 7.1b.820-823 s.v. Sucellus (Nagy, A. 1994); Webster 1986: 61-63, Green 1986a: 95-97.

12 Morlet 1957: 270-271, fig. 182.

13 Dumontet and Romeuf 1980: 46, nos. 198-200, pl. 45. Museum Inv. Nos. B1/1044, C3/76, B1/130.

14 Bourgeois 1991: 164-165, fig. 85; Bonnard 1908: 289-291; Toutain 1920: 368; CAG 38/1.87.63-65. (Pelletier et al. 1994).

as pillars. The face of the rectangular plaque depicts two griffons on either side of a vase which bears the inscription ALLM. Other fragmentary plaques with figural representations and inscriptions can be seen amongst the plain hammers in the surviving photograph. These include one long plaque filled with a row of large capital letters that read: M.RVF.MARCIAN.VF.[15] A pair of broken cylindrical objects rising out of either end of this plaque are probably the grips of hammers. It is likely that this plaque was the base of another *aediculum* like the one mentioned above. Two more plaques represent prancing horses, and one shows a frontal face. The presence of imagery and inscriptions alongside the plain hammers from Uriage-les-Bains, as well as the two dimensional nature of these offerings, is proof that we are dealing with symbolic rather than substitutional votives. The hammer must have been one of the major attributes of the god worshipped there, whether it was Vulcan or an unknown Celtic deity. The situation is similar to that of the model wheels, which were used as votive offerings that represented the main attribute of the Romano-Celtic wheel god. (**2**).

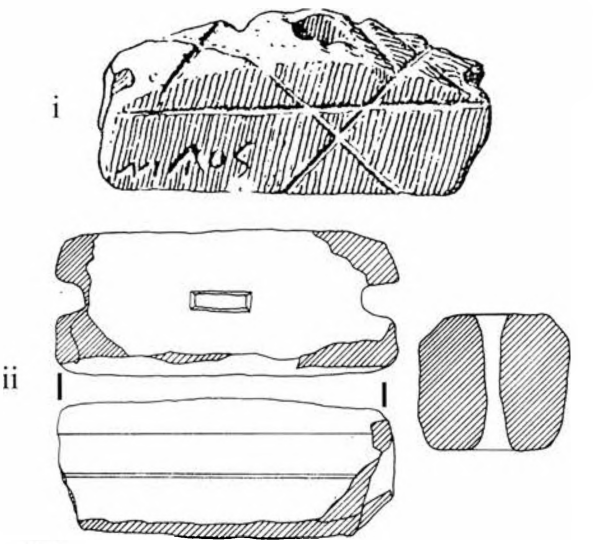

Fig 7.4. Stone Mallets or Weights. i) Bouze, Côte d'Or. ii) Malain, Côte d'Or. Both are 1:4. (After i: Thevenot 1952: fig. 12.1; Rabeisen 1979: pl. 34).

Several French sites have produced rectangular stone objects that have been interpreted as votive mallets. Six come from various sites in the Côte d'Or, and one from Glanum (Bouche-du-Rhône).[16] The example from Bouze (**fig. 7.4.i**) is typical of the other examples in most respects. It is a simple rectangular prism (L. 17 cm), of which the top part is convex. It is pierced by a central hole and has two vertical grooves along the centre of both faces. Unlike the other stone mallets, it is decorated with a number of incised diagonal and horizontal lines, and has the mysterious inscription NIAOS (or possibly MAOS) engraved on one side.[17] Against the interpretation of these objects as votive mallets, Rabeisen suggested

15 CIL 12.2251. Another plaque, not visible in the photo is recorded as bearing inscription L. SCRI. MARTINVS. AC. F. The rectangular plaque is illustrated in *CAG* 38/1.87.65. fig. 25. (Pelletier et al. 1994).

16 Bourgeois 1991: 164-165. Thévenot 1952: 99-103.

17 Thévenot 1952: 100, no. 1, fig. 12.1; Espérandieu 3.2.076; CIL 13.2.857.

that two examples from Malain (**fig. 7.4.ii**) were some kind of counter-weight.[18] All of these finds are certainly mallet-like in form, but the parallel grooves on either face are hard to explain, and certainly do not belong on the normal tools. Moreover, the central shaft-hole is sometimes a slit rather than a circle, and could never have contained a functional handle. It is far more probable that the grooves, holes and slits in this objects had cords running through them and that they served, as Rabeisen suggests, as some kind of weight.

7.2.3. Miniature and Life-Sized Tools made of Lead

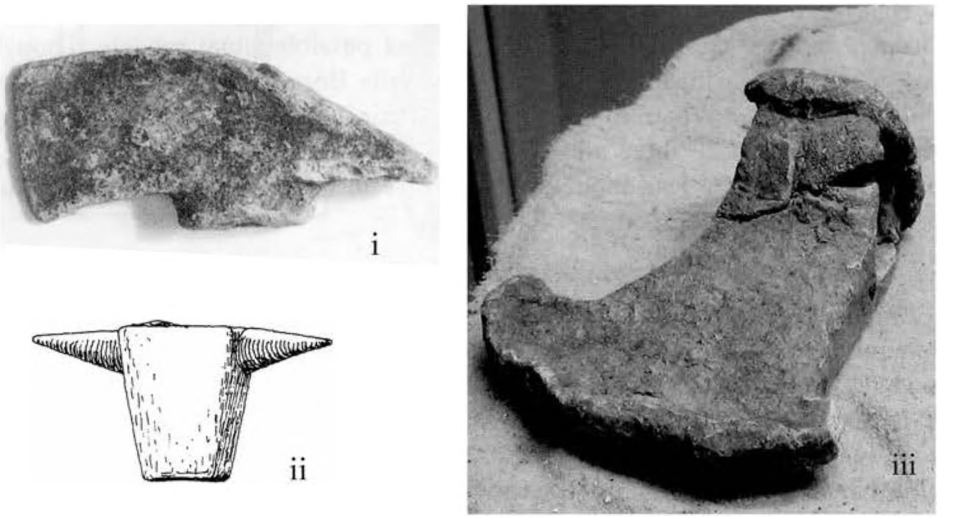

Fig 7.5. Lead Models, i) hammer head from Great Walsingham; ii) anvil from Brough-on-Humber; iii) axehead from Villa Borg. i-ii are 1:1, iii is c. 150 mm long. (i: Bagnall-Smith 1999: pl. 6c; ii: Green 1981: fig. 4.2; iii: Author, Villa Borg).

A small (L. 55 mm, Th. 18 mm) hammer head, found with the other material from Great Walsingham, has been recognised by Bagnall-Smith as being possibly of a functional size, but rendered useless by being composed of soft lead. This non-functionality places it within the realm of the other votive models.[19] There are at least two other instances of small life-sized tools made of lead. An axehead (L. c. 15 cm), was found at Villa Borg (Saarland). The cutting edge of the blade is blunted and dented from use. The second is a lead *ascia* head found in the excavations of a late first century A.D. legionary barracks at Deannery Field, Chester.[20] The 9 cm long *ascia* is an otherwise perfect copy of this Roman military tool, and the excavators imagined the nicks on its face were the result of the tool being used against metal wire in a harder alloy. An 80 mm high rounded conical lead object from the same site, seen as a weight by the excavators, has

18 Rabeisen 1979: 50, nos. 197-198 pl. 34. The two objects weigh 1.79 and 2.65 kg.

19 Bagnall-Smith 1999: 34, no. 24, pl. 6c.

20 Newstead 1928: 22, no. 1, pl. 11.1. Found on the surface of the sand floor of room 3A block B.

been identified by Green as a model anvil that accompanied the *ascia*.[21] Both explanations for the fragmentary conical object are possible, and more besides. It could, for instance, simply be a lead ingot. Other finds of lead objects and scrap, and the presence of a large hearth in the same room, seem to suggest that lead working took place on this site.[22] A more obvious miniature anvil, also made of lead, was found at Brough-on-Humber (Humberside).[23] In this case, however, the form of the anvil, with two conical wings on a square base, does not appear in the most recent typology of Roman anvils, and because it also lacks an archaeological context, it should probably be regarded as modern.[24]

This leaves only the hammer head from Great Walsingham, the ascia from Chester, and the axe-head from villa Borg as possible ritual models. Though two are from non-ritual sites (arguably the villa Borg example might be from a *lararium*), it is still hard to imagine any practical use for these objects. It may be significant that all three are relatively small versions of the tools. The key to understanding the lead model tools may lie in the usage marks, but for the moment they remain something of a mystery.

7.2.4. Hammer Pendants / Modern Pipe-Cleaners

Another large group of miniature bronze hammers is well documented in Belgium and Northern France (**fig. 7.6.ii-iii**). Most are around 50-60 mm long, and have cylindrical hafts, that are often engraved with diagonal lines. The casing of the head is large and square, is almost always incised with an X on one or both sides, and is surmounted with a flat suspension loop. The nape of the head is a thin, narrow and triangular, and slopes downwards. The cylindrical or tapered body of the hammer head is usually significantly smaller than the central casing. There does not seem to be a single specimen with a firm archaeological context, though one example from Kruishouten-Kapellhouter, East Flanders, was found in the topsoil above a Roman sanctuary along with various other figural bronzes.[25]

These objects have been studied by Dufrasne, who concludes that that they are not Roman artefacts at all, but early modern pipe-cleaners of the 18th and 19th centuries.[26] Early clay pipes, like modern pipes, would have developed a layer of hardened ash inside the bowl that would need to be periodically scratched

21 Newstead 1928: 22, no. 2, pl. 11.2; Green 1978: 54, Chester Nr. 30; Green 1981: 267 nos. 3B and 3D. The anvil/weight and *ascia* are now in the Grosvenor Museum, Acc. Nos. 598 R 1977 and 599 R 1977. Green describes a matching hollow in this object that corresponds to the ascia mentioned above. There is no mention of such a depression in the site report, nor does it appear in the photograph.

22 Newstead 1928: 8-9 and 22-23.

23 Green 1978: 47 Brough-on-Humber (Humberside), no. 4, pl. 122; Green 1981: 260, fig. 4.2. Now in the Hull Museum.

24 Duvauchelle 2005: 17-20.

25 Rogge, Vermeulen and Moens 1995: 199 fig. 5.7. Other hammer pendants of this type are listed in Dufrasne 2005a and 2005b. Individual finds in Wallonie, Belgium, have been reported by Soleil (1996/7) and Delcourt-Vlaemink (2000).

26 Dufrasne 2005a: 213-214 and 2005b: 45-46.

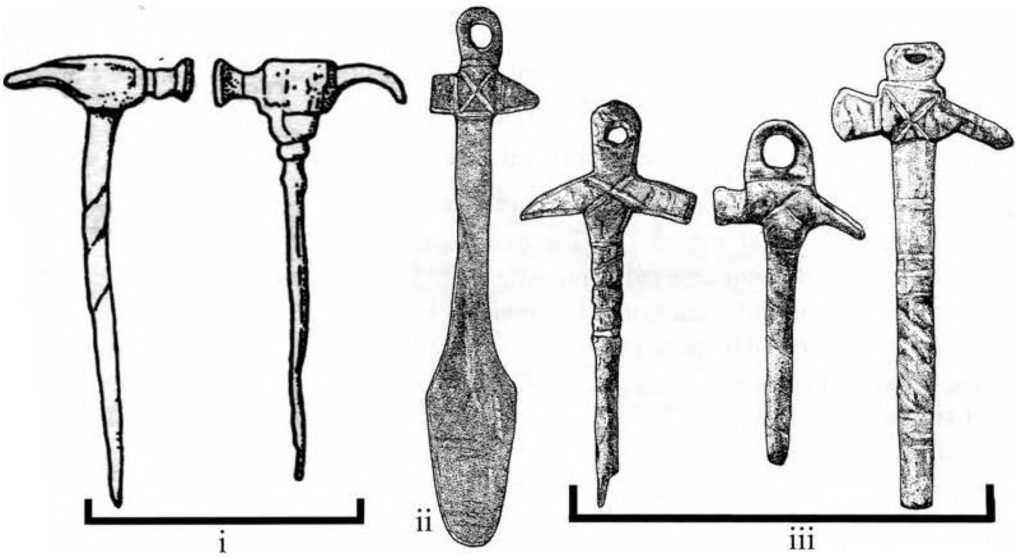

Fig. 7.6. i) Early Modern Pipe-Cleaners, 17th-18th centuries. ii-iii) Probable Early Pipe-Cleaners. All 1:1.
(Adapted from Dufrasne 2005a: figs. 2, 20, 19, 12 and 16.)

out. Presumably this would have to be done with the bottom of the haft, as the curved part of the hammer head is too near the suspension loop. This may explain why many of these objects are broken at the haft. One of the hammers known to Dufrasne (**fig. 7.6.ii**) has large flat spatula-like form that that seems ideal for scooping out burnt tobacco from the bowl, and is just like the scoop on a 21st century pipe-cleaning tool. Finally, some early modern pipe-cleaners are known to have taken the form of little bronze hammers, albeit without suspension loops (**fig. 7.6.i**). Dufrasne's identification of the pendants is hard to deny or confirm. While there is a wealth of literature available on clay pipes, almost nothing has been written on the subject of early pipe-cleaners.[27]

In support of Dufrasne's argument that these pendants are not Roman, they do not closely correspond to any known life-sized Roman hammer type. When viewed from above, the casing of a Roman hammer is almost always cylindrical or, more rarely, diamond-shaped.[28] The square box-like construction emphasised in the miniature hammer pendants is also quite unknown in the Roman tool. Even if they are not pipe-cleaners, it seems unlikely that these objects are antique.

27 Confirmed pipe-cleaners in the form of hammers are illustrated by Dufrasne (2005: 211, fig. 2) The hammer pendant with the spatula terminal is Dufrasne 2005a: 222, no. 20, fig. 20. I have sent images of these hammer pendants to Peter Hammond of the Clay Pipe Research Society (7.11.2006) and Don Duco (6.11.2006) of the Pijpenkabinet (Dutch National Pipe Museum) in Amsterdam. Both considered the hammer pendants as unlikely candidates for pipe cleaners, but Mr. Duco confirmed that hammer-shaped pipe cleaners do exist. I am grateful to both authorities for their opinions.

28 For examples see Duvauchelle 2005: 21-22, nos. 8-17.

Perhaps they are the emblems of an early modern company or guild. In any event, Roman or modern, the suspension loops make it clear that these miniature hammers were meant to be worn and not used as votive offerings, so they need not concern us further.

7.2.5. Miniature Hammers or Functional Tools?

A number of very small iron and bronze hammer heads have been interpreted as ritual models. In his treatise on model axes, Forrer recorded miniature bronze hammer heads from Augst, the Roman camp at Mainz (**fig. 7.7.i**), from a garden in Bad Kreuznach (Rheinland-Pfalz, **fig. 7.7.ii**) and two specimens from Stradonice.[29] All ranged in length from 25 to 35 mm. At first Forrer could not decide whether these objects were votive offerings or the functional tools of smiths, but he eventually settled on the former interpretation and considered them to be fragments of the long hafted hammers and axes known in Switzerland, which have already been identified here (**4.4**) as simple dress accessories. They could equally be pendants, though a few specimens included fragmentary metal hafts.

A few slightly larger specimens can be added to those known to Forrer. Green includes a 41 mm long hammer head from Richborough in her catalogue of ritual material, and an almost identical (L. 66 mm) hammer head was found at Baldock in a mid-third century A.D. context.[30] A functional explanation has been ascribed to this last piece, and to several specimens of similar size found at Avenches.[31] An 80 mm long bronze hammer with separately made haft and head in the Staatliche Kunstsammlung in Kassel has no provenience, but appears to be similar to the other loose hammer heads described here.[32] Though not actually a model hammer, an 86 mm long iron pick head was found in a third century hut near the entrance to an iron mine at Lydney Park. It was interpreted as a non-functional representation of the Roman miner's principal tool.[33] As with the smaller hammer heads, this pick could also have been used for fine metalwork. Tiny hammers and tools are certainly needed for fine smithing, especially the production of jewellery and the manipulation of soft previous metals like gold. The form and size of even the smallest of these miniature hammer heads differ very little from the tools of modern jewellers.[34] Clinching proof for the functionality of at least the larger hammer heads has been found at Bad Wimpfen, where a 67 mm long hammer head (**fig. 7.7.iv**) and a 120 mm long pair of tongs (**fig. 7.7.v**) were found inside a stone oven.[35]

29 Forrer 1949: 72, cat no. 2.1 and 76, nos. 7-10, pls. 10.7 and 12.7-10.

30 Green 1978: Richborough no. 30; Green 1981: 259, 15d; Bush-Fox 1949: 146, no. 208; pl. 53.

31 Stead and Rigby 1986: 150, no. 493, fig. 65; Duvauchelle 2005: 21-22, nos. 13-16.

32 Höckmann 1972: 45, no. 130, pl. 29.

33 Wheeler and Wheeler 1932: 92, no. 182, fig. 22.

34 I am grateful to Helena Kotarlić for making this observation and for showing me a modern jeweller's hammer.

35 Pietsch 1988: pl. 84.

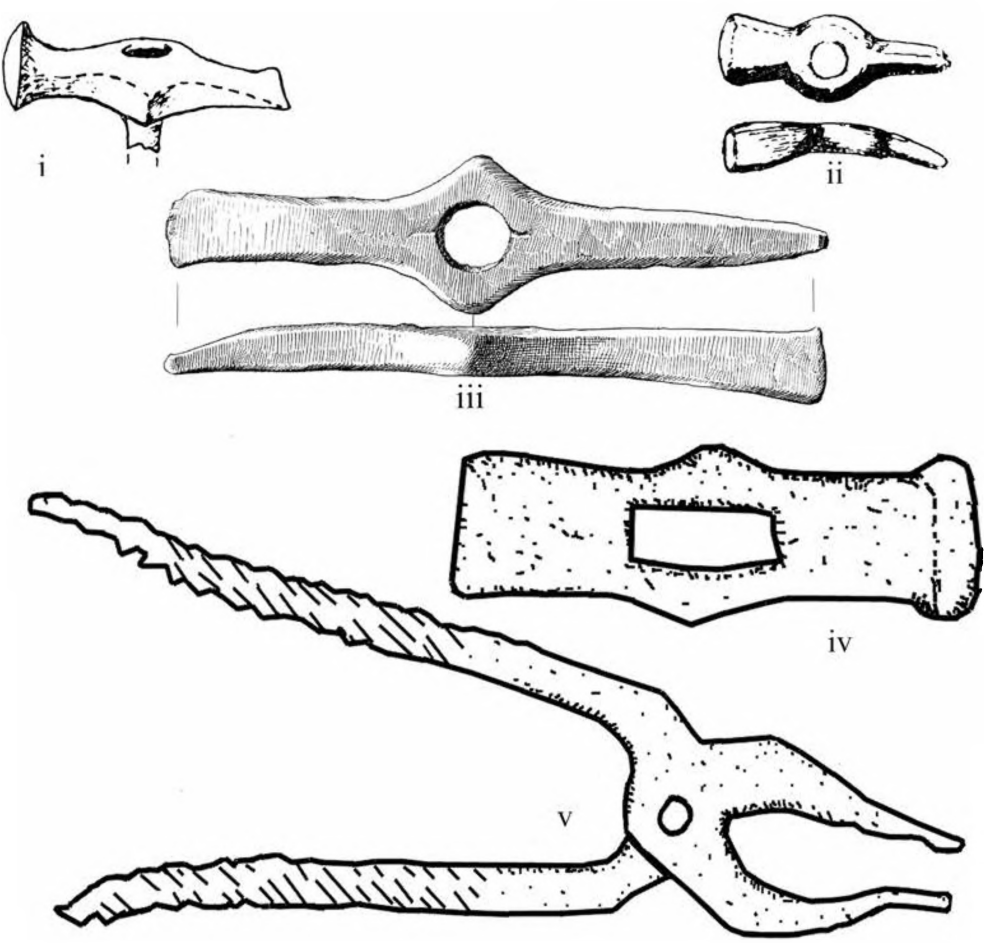

Fig 7.7. Various Miniature Tools. i) Mainz ii) Kreuznach iii) Lydney Park. All 1:1. (After i-ii: Forrer 1948: pl. 12.7-8 and Wheeler 1932: Fig. 22), iv-v: Author, drawn from a photograph).

7.2.6. Miniature Shovels

Miniature bronze shovels have been found at several sites, including Cirencester (L. 72 mm, **fig. 7.8.ii**) in Britain, and Clavier-Vervoz (L. 40 mm, but probably broken, **fig. 7.8.i**) in Belgium.[36] In the United Kingdom at least three similar shovels have also been reported to the Portable Antiquities Scheme, from Witney (Oxfordshire), Guilford (Surrey) and Barton Upon Humber (Humberside).[37] Webster interpreted the Cirencester shovel as either a replica of a baker's tool, used for removing bread from an oven, or as a representation of a fire shovel

36 Cirencester (now in the British Museum): Green 1975: 65, no. 48 fig. 4.48; Green 1976: 174, no. 55 pl. 28g. Clavier-Vervoz: Bodson 1983: 42 and 72, no. 139, pl. 9.8, inv. no. 6/65/ V.

37 Portable Antiquities Scheme nos. WMID4391, SUR-1AC0D5 and NLM-029211.

used in rituals of attending the Roman hearth.[38] This latter theory was no doubt based on the interpretation of a group of Roman bronze tools normally described as 'fire shovels' or 'incense shovels'.[39] These life-sized objects, however, were meant to be held in one hand and have grips that are seldom longer than the blade. The grip of the Cirencester model, on the other hand, is significantly longer and clearly represents a tool to be used with two hands. The grip of the Clavier-Vervoz miniature seems to be broken, and was probably longer as well. While the exact find spot of the Cirencester specimen is unknown, the Clavier-Vervoz shovel was found in the bath house of the Roman *vicus*. This suggests that these objects are ointment scoops rather than votive models.

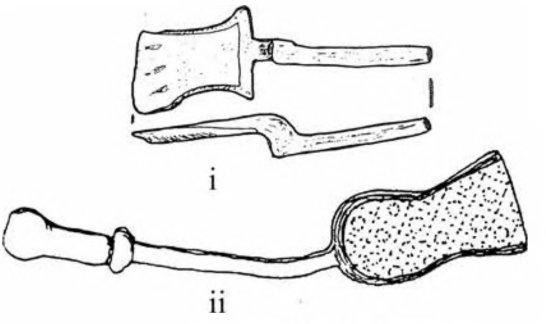

Fig 7.8. Miniature shovels. i) Clavier-Vervoz. ii) Cirencester. Both 1:1. (After i: Bodson 1983: 72; ii: Green 1975: fig. 4.48).

7.2.7. Conclusions, Miniature and Model Tools

To sum up there is no continuous group of miniature or model tools that obviously served as substitutes for the real thing. There are a few models that may well have had a ritual purpose, but they are scattered and unusual. In most cases there is serious doubt as to whether or not objects identified as ritual models did not actually serve practical functions, and even as to their dating. There is no evidence from the material considered here that a craftsmen regularly dedicated miniaturised representations of the tools of their trade.

7.3. Model Objects Relating to Travel: Boats, Anchors, Feet

Travel was a dangerous activity in the ancient world, and a far greater source of anxiety than it is today. Whether going by land or sea, it was common for travellers to seek divine protection or to give thanks upon their return. There is no shortage of literary and epigraphic evidence to testify to this fact, and there are a few model objects within the study area that seem to relate directly to travel.

The first is a group of sandaled feet found in the pass sanctuary at Grand St. Bernard in Switzerland. Five miniature sandaled feet in bronze were found at the temple at this pass sanctuary, and like the numerous inscribed votive plaques found there, were interpreted as relating to the vows of travellers crossing the Alps.[40] Unlike anatomical votives depicting a sick body part, the feet are sandaled.

38 Webster 1986: 129.

39 For a discussion of the life-sized objects see Daremberg and Saglio 1887: I.682-683 *s.v. batillum* (Saglio) and Hayes 1984: 103-107.

40 Leibundgut 1980:108-110, nos. 127-130, pl. 136.

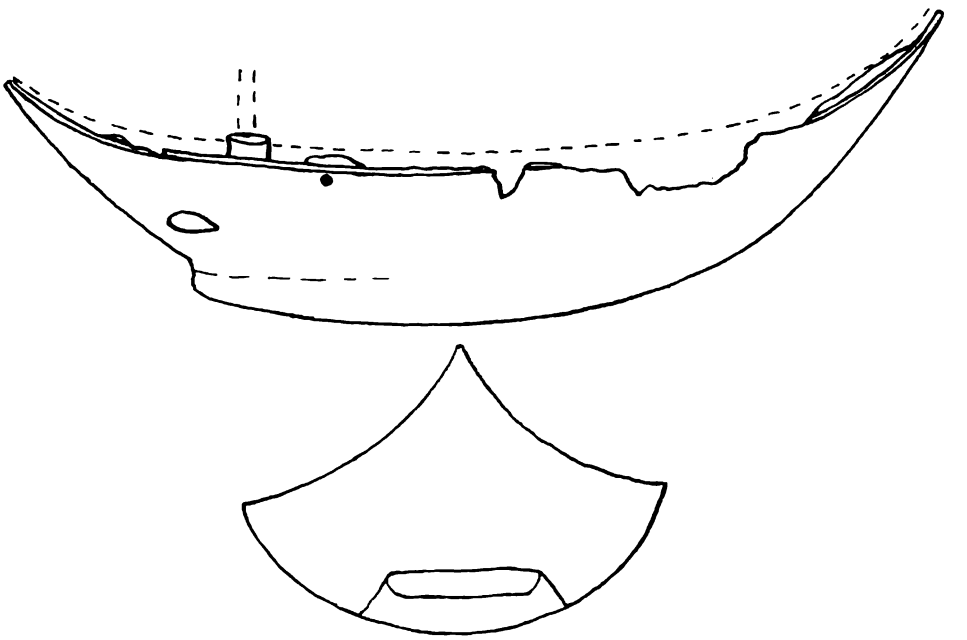

Fig 7.9. Bronze Boat Model from Cerveau, Saône-et-Loire. 1:2. (After Duval 1952: fig. 47).

Feet pendants, albeit not sandaled, are known from the Iron Age and early Roman period in the north-west provinces, and undoubtedly relate to Roman concerns about travel. An injured foot was highly prone to infection, and in an age before antibiotics could become quite a life threatening injury. As many of the feet from Grand St. Bernard seem to be broken at the ankles or shins, it seems more likely that they are fragments of bronze figurines than travelling votives.

Votive ships are almost unknown in the north-west provinces, and are rare in the Roman world as a whole. In the Greek world, model ships were used both as votives and grave goods. As a votive it presumably represented the ship used in a voyage, and as a grave-good the ship used to convey the soul of the dead to the underworld.[41] Though a variety of Roman stone monuments incorporate ships or prow-shaped bases, and oil lamps sometimes take the same forms, true model ships are rare in the Roman world. The famous bronze statuette of Dea Sequana from the Source-de-la-Seine sanctuary stands on top of a 40 cm long ship, which is itself mounted on a cylindrical base.[42] In this case, the ship has been chosen as an appropriate support for a representation of a water deity. It is an intricate part of the statue rather than a model. Though sometimes described as a model, it seems more likely that the smaller bronze prow of a warship (L. 81 mm), now

41 On votive ships in the Greek world see Johnston 1985 and Göttlicher 1978. On the rarity of model ships in the Roman period Johnston (1985: 145-46) and Göttlicher (1978: 8-9).

42 Göttlicher 1978: 91, no. 550, pl. 43; Deyts 1994: 128-130, pl. 57.1, now in the Musée Archéologique, Dijon.

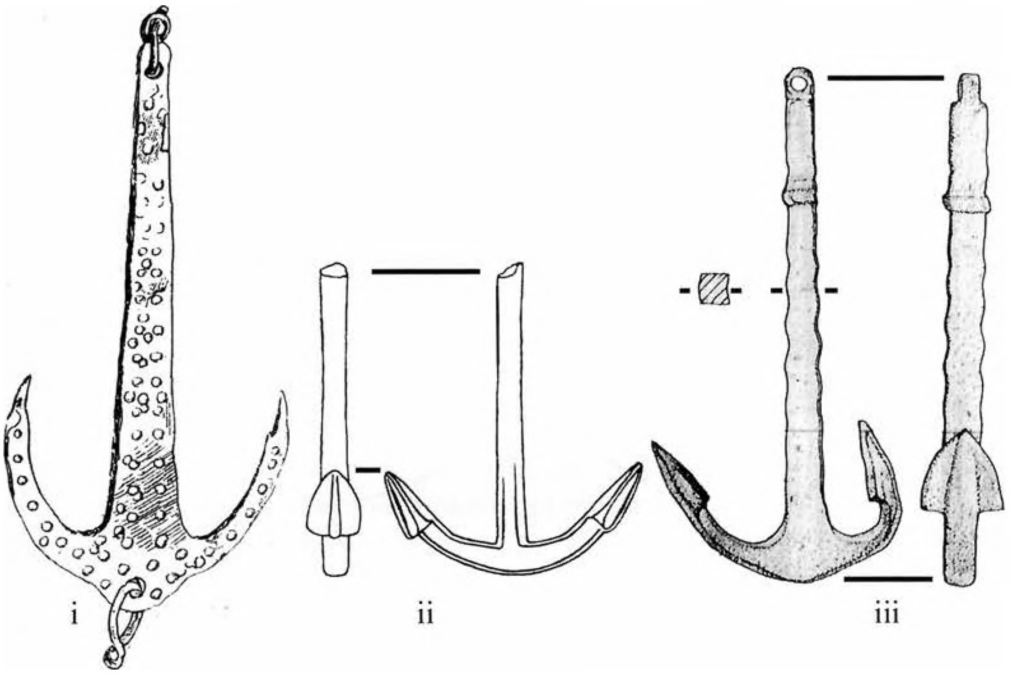

Fig. 7.10. Miniature Anchors. i) Rouen. 1:2; ii) Woodeaton; iii) Barton Court. Both 1:1. (After i: Vesly 1909b: fig. 2, ii: Kirk 1949: fig 8.8, iii: After Green 1984b: fig. 110.10).

in the British Museum, once served a similar purpose. The side of this object is inscribed "AMILLA AVG FELIX" in inverted letters on the side.[43]

The large (L. 43 cm) bronze prow of a ship, engraved with feathers and surmounted by a diademed female bust, was found in Trier near the Roman bridge in 1961. It was presumably mounted on a more complete wooden base, though whether or not this was in turn used to support other bronze statuettes is unknown. The front of the prow is engraved in large capital letters: MV.AVG.ET PRORETAR / LIBONI METTVS ET CRACVNA FR D D.[44] Two more bronze ships from the study area may well have been true votive models. The first is a 54.5 cm long and 16 cm deep bronze boat was found at Blessey (Côte-d'Or) in 1763.[45] The prow of the ship ends in a swan and includes a small decorative ram at the base. A single naked male figure sits at the back and would likely have held a now lost rudder. A row of nine holes along the side of the boat have been interpreted as supporting the benches of oars used by now lost rowers. It is equally possible, however, that the holes were used to attach a flat sheet of bronze on which a statuette was in turn mounted. The same is true of the less well

43 RIB 2432.1. The meaning of the inscription is unknown. It seems more likely that 'Amilla' is the name of a goddess rather than a ship, but the formula is certainly not votive. The inversion of the letters is equally puzzling.

44 Menzel 1966: 114-115, pls. 86-88.

45 Deyts 1994: 131, pl. 57.2, now in the Musée Archéologique, Dijon.

preserved and simpler model from Cerveau (Saône-et-Loire, **fig. 7.9**).[46] This 23 cm long bronze model is far plainer than those ships from Source de la Seine and Blessy, but it includes a fragmentary mast towards the prow, and was found with a miniature anchor connected to a short chain inside it. These models have been seen both as solar ships and as the votive offerings of sailors, but since both were found near natural springs it seems more likely that they related to a water cult like the Dea Sequana statuette.[47]

This leads us to the final group of models relating to travel – the model anchors. Apart from the example found with the boat at Cerveau, model anchors have been identified at Lillebonne, Rouen (**fig. 7.10.i**), Woodeaton (**fig. 7.10.ii**) and at Barton Court (Oxfordshire, **fig. 7.10.iii**).[48] Two notes of caution on identifying model anchors must be sounded. First, lead model anchors seem to have been a common children's toy in the late middle ages.[49] Secondly, the iron linch pins of ancient wagons are often anchor shaped, and a similar size to the objects described here.[50] The 13 cm long object found at Lillebonne that was identified as a votive anchor is almost certainly a linch pin. The 15 cm long model from Rouen, however, is made of lead and is therefore too soft to have been used for this purpose. It is decorated with a series of dots, and has fragments of chain attached at the top and bottom. Though broken at the top, the Woodeaton anchor is also a plausible copy of a true anchor, as is the more complete bronze specimen found at Barton Court. The latter was found in the topsoil above a Roman villa. It is possible that these model objects symbolised stability, though the Rouen anchor was found in a river. It is also possible that all three belonged to a larger ship model like the one from Cervau, or were symbols of a water divinity. Miranda Green suggested that the Woodeaton and Barton Court models were originally amulets, worn in honour of Neptune or another sea deity.[51] In any event, model anchors are not a common offering type.

7.4. Conclusions, Other Models

The various objects discussed here reveal something of the diversity of model and miniature objects as a whole. There are no doubt many other objects that might added to this chapter. There do not, however, seem to be any large consistent groups comparable to the miniature weapons, axes or wheels. Few of these individual finds come from good archaeological excavations, and we

46 Duval 1952: 243, fig., 47, now in the Musée Rolin, Autun.

47 For a further discussion of the interpretation of these models and other ship imagery see Bourgeios 1991: 159-161.

48 Lillebonne and Rouen: Vesly 1909b; Woodeaton: Kirk 1949: 40 no. 5 fig. 8.8; Bagnall-Smith 1995: 185, fig. 9. A second bronze specimen has been identified amongst the Woodeaton material by Bagnall-Smith (1995: 185, fig. 10), but this attribution seems rather dubious. Barton Court: Green 1984b: microfiche 5:F9-12, fig. 110.10.

49 Egan 1998: 11.

50 Garbsch 1986: 58-59, figs. 37-41.

51 Green 1984b: microfiche 5:F12.

have found some to be modern and many to be non-ritual objects. In this sense, a catalogue of miniature and model objects from the study area could go on almost indefinitely, collecting a very diverse body of unrelated material. The diversity of the conclusions reached for each type of model described in the above paragraphs is a further indication that the general idea of 'votive models' is more modern than ancient.

8. THE SO-CALLED "*MITHRASSYMBOLE*"

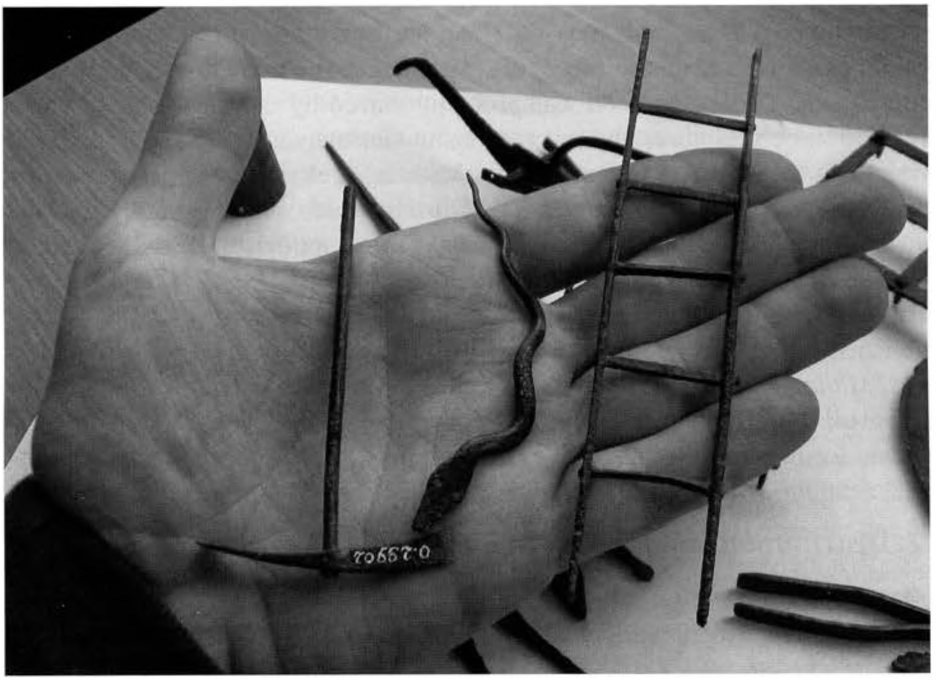

Fig. 8.1. The Mithrassymbole from Brühl. Bronze, 1:1. (Author, Römisch-Germanisches Zentralmuseum, Mainz).

8.1. Introduction

The final, and chronologically the latest, model objects to be discussed by this study are the so-called '*Mithrassymbole*' (singular *Mithrassymbol*). The German term is used to denote a series of miniature bronze tools and animals found in late antique graves in Cologne and its vicinity (**fig. 8.1**). They include representations of ladders, keys, balance beams, comb shaped yokes, axes, ploughs, saws, pitchforks, grills, lizards, toads, and snakes. Though they are actually grave goods, the *Mithrassymbole* are almost always discussed in connection with miniature and model votive offerings as if they were a related phenomenon.[1] In fact, these small bronze models were used exclusively as grave goods in a very specific set of burials. This chapter discusses the more important points about this find type, but as they can hardly be considered as votive offerings, a full catalogue is not given.[2]

1 *E.g.* Green 1975: 60 and 1984: 93-94 – connecting the miniature wheels to the *Mithrassymbole*; Webster (1986: 128-129) suggests that they are found in temples as well. Coulon and Fauduet (1990: 181) refer to them as as '*ex-voto*.' Kirk (1949) also refers to them alongside miniature axes of the sort found at Woodeaton.

2 The author has already assembled a catalogue of 57 graves with 248 individual *Mithrassymbole* for publication in the near future. Röttlander (1972/3) reproduces the illustrations of several groups

The term *Mithrassymbole* (singular *Mithrassymbol*) is first used to describe the models in print in 1878, but it must have been in common use prior to this date as it is employed without explanation.[3] The middle and late 19th century saw both a keen interest in local antiquities develop and a Europe wide fascination with the Mithras cult. This latter trend was probably stirred by the discovery of various Mithraic stone sculptures and inscriptions in Germany and Europe.[4] The bizarre symbolism of the stone monuments of Mithras does indeed slightly match the equally inexplicable repertoire of the *Mithrassymbole*, and it is likely that these two factors combined caused the enigmatic bronze models to be associated with the eastern cult. The connection between the *Mithrassymbole* and the Mithras cult, however, is entirely false, as Cumont realised as early as 1896 when he published the first scientific study of Mithraic iconography.[5] Nonetheless, the term '*Mithrassymbole*' has continued to be employed in subsequent publications and is still in us today. For the sake of consistency it will also be used here.[6] The reasons for refuting the Mithras connection, as well as other explanations as to their meaning, will be discussed in the final section of this chapter.

8.2. Distribution and Findspots of the *Mithrassymbole*.

Published *Mithrassymbole* with known find spots stem almost exclusively from graves in and near Roman Cologne. Founded in 39/38 B.C., Cologne (*Colonia Claudia Ara Agripennsis*) was an important city throughout the entire Roman period. As the capital of Germania Inferior, it housed a large and diverse population of around 20,000 by the mid third century. The city was sacked by the Franks in 355, and although they were chased off by the emperor Julian shortly thereafter, the city never fully regained its former glory. The Frankish period of Cologne can be said to have begun in the early fifth century.[7] Large cemeteries have been excavated on either side of the roads leading out of the ancient city's south, west and northern gates in the late 19th and early 20th century, and all have yielded burials containing the enigmatic models.

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without commentary; Beilke-Voigt (1998: 332-333) lists 43 groups of *Mithrassymbole*, but without reference to the associated finds.

3 Dütschke 1878: 77.

4 In Cologne itself, the finds include an altar with Cautopates (CIMRM 1025), and near Bonn various Mithraic sculptural reliefs and votive inscriptions were found in 1858 (CIMRM 1028-1033). In Germany as a whole, the most spectacular finds of this period must have been the mithraeum at Friedberg, Taunum in 1849 (CIMRM 1052-1072), and two mithraea from Nida-Heddernheim in 1826 and 1887 (CIMRM 1082-1135.) A mithraeum was not found in Cologne itself until 1927, followed by two more in 1958 and 1969. (Ristow 1974: 6-11).

5 Cumont 1896: II.525.

6 Päffgen (1992: 257) suggested the alternative term '*crepundia*', but this has not been taken up, perhaps because the word most frequently refers to rattles rather than miniature objects (OLD s.v. *crepundia)*. In a single passage in Apuleius (*De Mag.* 56) the word means 'amulet.' It is impractical as a modern term for the *Mithrassymbole* in any event since it only exists in the plural.

7 Horn 1987: 461. On Julian and the Franks see Amm. Marc. 15.8.

Just outside of Cologne, graves with *Mithrassymbole* have been found at Brühl, about halfway between Cologne and Bonn, and Rodenkirchen, on the Rhine just south of the limits of modern Cologne.[8] The grave at Rodenkirchen was part of a small cemetery connected to a nearby Roman villa. There are also three finds in and near Bonn, the importance of which seems to have declined greatly in the late antique period, and at least three from Trier.[9] In addition, two graves with *Mithrassymbole* are known in Holland.[10] The furthest removed group of *Mithrassymbole*, now in the British Museum, was obtained in 1854 with the purchase of the Croften Croker Collection, and is recorded as having been found in a tumulus burial in Sussex. This cannot be confirmed, and there are no associated objects recorded from the same burial.[11]

8.3. Characteristics of the Graves with *Mithrassymbole*

There does not seem to be any standard set or number of *Mithrassymbole* for any given burial, though they general occur in small groups; the average number of models per burial being nearly five. Both abnormally large groups, such as the thirty from Rodenkirchen, and graves with single *Mithrassymbole* are also known. A detailed description of all known groups of *Mithrassymbole* will not be given here, but where a context is known, they all come from burials rather than temples or domestic sites. With the exception of two cremation burials in Holland, all of the burials were inhumations. Where the skeletal remains could be analysed, they revealed that the deceased was always female. In cases where no bones could be analysed, grave goods typical for female burials are usually present. The presence of stone sarcophagi, amber, jet and precious metal adornments, as well as multiple glass and ceramic vessels reveal these burials to be amongst the very richest known from the vicinity of Cologne.

In several instances, the *Mithrassymbole* were found in the remains of a small wooden box.[12] Such wooden boxes (c. 20 x 30 cm), are a well documented phenomenon of graves from the middle of the third to the end of the fourth century both in the Rhineland and Pannonia.[13] They are referred to by the Latin

8 Haberey 1949 and 1962.

9 Horn 1987: 370. The graves in Bonn see Weerth 1882: 117-181; Blinkenberg 1904: 119; Cumont 1896: II.526, no. 4; Blinkenberg 1904: 119, no. 4; van Leuten 1882: 85-86. All are in the RLM Bonn - RLM Bonn Inv. Nrs. 30,540-1, A1041.01-05 and 1649 (now lost?). One of the burials with *Mithrassymbole* in Trier is cited by Blinkenberg 1904: 119, no. 10. The two others are unpublished. The objects can be found in the RLM Trier Inv. Nrs. PM 352; Nr. 9634, 9632, 9634 and 10,801, 9635, 9633.

10 Steures 2004: 164-173, fig. 5; Smeets 2003: 89-92.

11 Manning 1966. It is possible that a small model Scythe from Walton Court, Ayelsbury in Buckinhamshire is also a *Mithrassymbole*. Farley, Nash, and White 1981: 62-63, no. 36, fig. 4.26.

12 Cologne, Jakobstraße Grave 112 and 118 (Friedhoff 1991: 241-2, no. 112, fig. 31, pl. 19 and 78, 246-248, no. 118, fig. 34, pl. 21 and 80.); BonnerStr. (Sechtemer Str.) grave 1 (Schuler 2002: 496-497); Rodenkirchen (Haberey 1949); and Brühl (Haberey 1962).

13 Kasparek and Wilhelm 2001; Buschhausen 1971: 11. The famous cycle of ceiling paintings from the supposed imperial palace at Trier include a nimbate female removing a pearl necklace

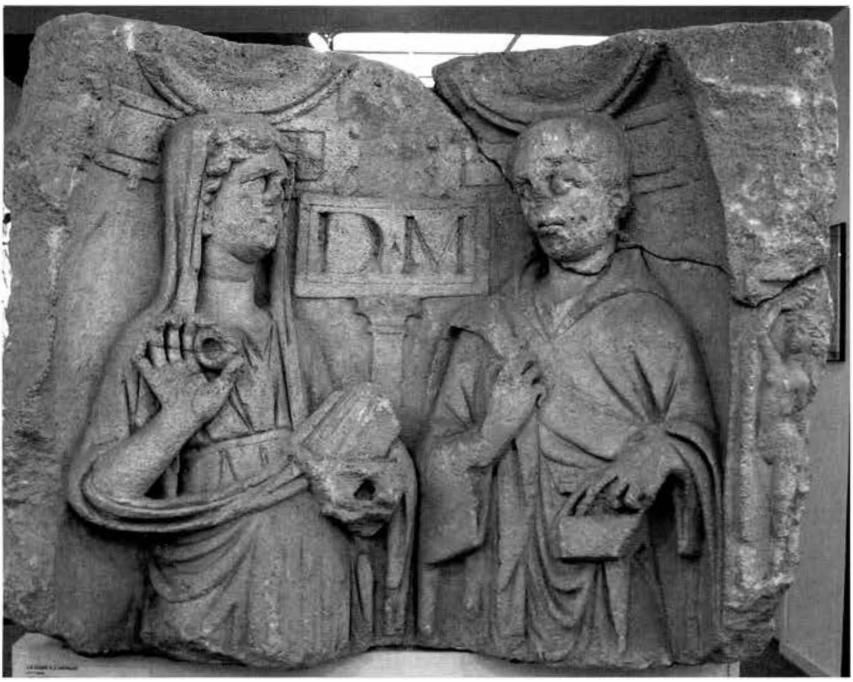


Fig. 8.2. Funerary Monument Showing a Married Couple from Arlon. The woman holds a scrinium, from which she has removed a finger ring. (Author, Arlon Musée Archéologique).

word *scrinium*, and usually contained items of feminine apparel.[14] Certain Roman funerary monuments depict deceased women holding a *scrinium* and extracting some article of jewellery from it, or show a servant holding the box next to her mistress (*e.g.* **fig. 8.2**).[15] Objects found near the *Mithrassymbole* follow a fairly strict pattern, including small glass and ceramic containers, hairpins, coins, shells, jewellery and pendants, and small knives. The obvious linking element between all these objects is personal beauty, which fits with those examples found in wooden beauty boxes.

8.4. The Dating of Graves with *Mithrassymbole*

The precise dating of the graves with *Mithrassymbole* is based almost entirely on coin evidence, as the forms of the associated glass and ceramic vessels provide only very broad dates from the middle of the third to the second half of the fourth centuries A.D. Even this is problematic, as there is some reason to believe that

from a *scrinium*. The identity of this figure is debatable, but the most convincing explanation sees her as a personification of beauty: *pulcheritudo* (Simon 1986: 34-38, pl. 6).

14 Boppert (2001: 45) notes also the alternative terms '*arca*' and '*arcula muliebris*'; Buschhausen 1971: 11-12; Gorecki 1975: 262-264.

15 For a discussion of this type of relief sculpture in the Roman west see Boppert (2001) and Walde (2001).

older coins were preferred in late antique burials.[16] A number of burials contain large bronze coins of the Antonine period, but also examples of a specific barbotine vessel type (the '*Spruchbecher*') that was produced between A.D. 255 and 355.[17] The majority of the *terminus post quem* dates provided by coins alone are to be found in the late third century, followed by graves including coins of Constantine or his sons. The latest coin comes from the very burial from Rodenkirchen, which includes coins of Gratian (367-383). Thus it seems likely that *Mithrassymbole* were used from the middle of the third to the late fourth century A.D.

8.5. Description of the Mithrassymbole

The *Mithrassymbole* are usually well if simply made, most being cast in a single piece and measuring less than 80 mm in total length. A few pieces show traces of surface silvering, and simple stamped or incised details are common. There is such great similarity between individual examples as to suggest that the same models were often used for casting, or that all of the models were produced in a single workshop. The repertoire of tools reproduced by the *Mithrassymbole* is enormous. Apart from the major groups discussed below, some of the less common models represent spades, scythes, corn tossers, transport stretchers (*fercula,*) as well as curved grills and a ladle. The most common model types represent balances, yokes, keys, ladders, snakes, toads and lizards. If nothing else, the *Mithrassymbole* are an important and perhaps neglected source of information for Roman agricultural equipment.

Scales

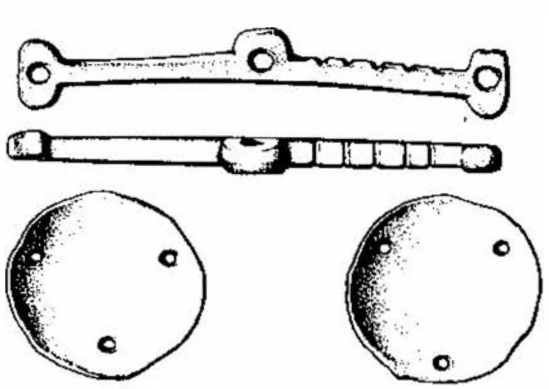


Fig. 8.3. Example of a Mithrassymbole Balance Beam. From Cologne, Jakobstraße Grave 85. Bronze, 1:1. (After Friedhoff 1991: pl. 11).

The most frequently occurring *Mithrassymbol* is the balance beam (L. c. 65 mm) with its corresponding hanging bowls (**figs. 8.3** and **8.9**). The bowls are sometimes curved, and sometimes flat, but all have three piercings for the strings that attached them to the beams. One larger example is said to have been found with threads still connecting the bowls to the beams, and a beam from Nijmegen was found with a fragment of the leather strap still present in the central suspension

16 Gorecki 1975: 307; Harl 1996: 148-159.

17 Künzl 1997: 129. Her typology incorporates five different types, each with more exact date ranges.

loop.[18] Notches engraved on one side of the balances occur on real Roman scales as well, allowing a single fixed weight to slide up and down the opposite end of the beam. These notches feature both on fine small metal Roman scales as well as representations of larger industrial and farmyard tools.[19]

Double Yokes

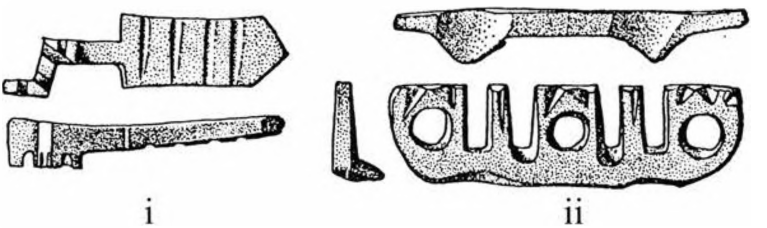


Fig. 8.4. Miniature Key and Double Yoke from the Brühl Burial. Bronze, 1:1. (After Haberey 1962).

The earliest publications of *Mithrassymbole* groupings frequently mention a comb-like object (*'kammartige Gerät'*) amongst the other models (**fig. 8.4.ii**). They were at one point thought to be part of the mechanism of locks, but in 1939 Behrens recognized them as model yokes, based on comparisons to representations of yokes on grave stele.[20] All of the comb-like yokes share the same basic form, and most measure about 45 mm in total length. They consist of five 'teeth' on top of a vertical bar in which there are two curved indentations.

Keys

Representations of keys are also common amongst the *Mithrassymbole* (**fig. 8.4.i**). Most are between 31 and 39 mm in length, and many have incised zig-zag and X patterns on one side. The large broad flat section of the keys would have served as the grip, while the thin section that bends away at two right angles would have lifted the tumblers out of the latch inside the lock mechanism.[21] While such keys are appropriate for small wooden boxes, the *Mithrassymbole* keys can hardly have been functional. Apart from their small size, the teeth or beard of the keys has simply been scratched onto the surface.

18 Lindeschmidt 1900: 399; Steures 2004.

19 Mutz 1983: 27-28. An illustration of a balance with two bowls can be seen on the grave of a gold beater in the Vatican (Mutz 1983: 11, fig. 3; Zimmer 1982: 188, no. 124). Farmyard scale representations: Zimmer 1982: 222, nos. 183 and 225, no.189, 227-228, no. 194, and 131, nos. 46 and 46.

20 Manning 1966: 59; Behrens 1939; Coulon and Fauduet (1990: 177) note *fibulae* in the same form.

21 In Gáspár's classification system of Roman keys, all of the Mithrassymbole are type IVa (Gáspár 1986: 47-49, fig. 14).

Ladders, axes, hammers and saws.

Fig. 8.5. Mithrassymbole Saw, Ladder and Axe (from Cologne, burial near Elendskirche), and an ascia (from Cologne, burial near St. Severin) All bronze, 1:1. (Author, RLM Bonn Inv. Nrs. U. 1387-97; and 1398-1406).

A variety of tools occur repeatedly amongst the *Mithrassymbole* (**Fig. 8.5**). Ladders (**fig. 8.5.ii**), usually with six or seven rungs, are quite common, as are axes (**fig. 8.5.iii**). The axes are usually slightly longer than the votive models discussed earlier (**4**), but their blades often match the type 3 variant (**4.6**), which itself reproduces a common Roman axe form.[22] The *ascia* (**fig. 8.5.iv**), the combined hammer and pick tool, appears several times amongst the *Mithrassymbole*, and is a distinctly Roman tool. The *dolabra*, the Roman double pick, is also represented, as are simple hammers. Of particular interest are representations of curved Roman saws (**fig. 8.5.i**), which are otherwise known only from depictions on sculpted stone monuments.[23] They are identical to one depicted on a late republican votive altar in the Capitoline Museum and very similar to one on a Christian gravestone in the Lateran.[24] Representations of spades and pitchforks are also quite common, varying little from their modern counterparts.

The Rodenkirchen Wagon and Ploughing Equipment

The largest model found amongst the *Mithrassymbole* is a single wagon from the Rodenkirchen burial, which is made up of five main parts. The axels, undercarriage and pole for connecting the wagon to the yoke are joined in a single piece. The pole is attached to the undercarriage by a simple hinge, and curves into a hook at the yoke end. Four damaged wheels from the same burial, each with eight spokes, fit on the axels of the undercarriage. The double yoke from the same burial fits nicely on the necks to the back of two model oxen, which are unique amongst the *Mithrassymbole*. From the end of the pole to the back of the undercarriage the

22 Manning 1985: 16, type 4; Duvauchelle 2005: 136, type 3.

23 They correspond to the type d saw in Blümner's system of classification (Blümner 1879: 2.220, fig. 42). On Roman saws see also Duvauchelle (2005: 40-43), who lists some surviving blades.

24 Gummerus 1913: 101, no. 48, fig. 20, and 103-4, no. 54, fig. 22; CIL 6.30982.

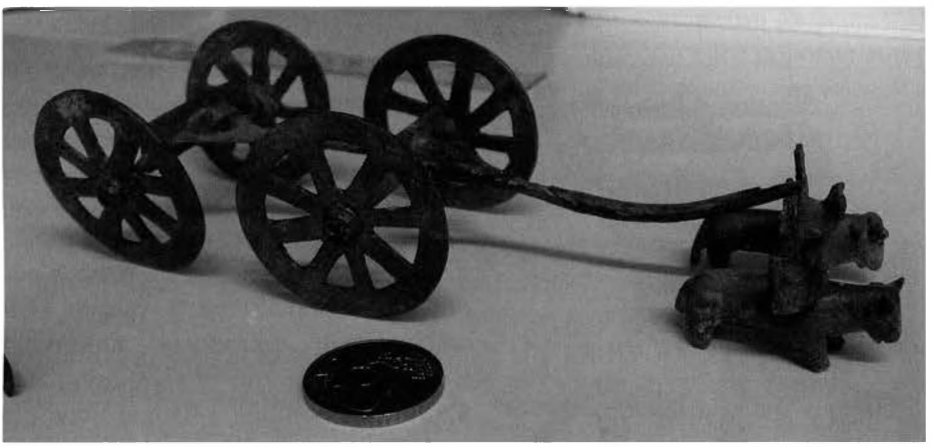


Fig. 8.6. A Reconstruction of the Wagon from the Rodenkirchen Mithrassymbole. (Author, Rheinlandesmuseum Bonn).

wagon measures 15 cm, and the axels are 6 cm long. Without its upper section, which was presumably made of wood, the Rodenkirchen wagon could just as well have been an open farmer's cart or a Roman travelling wagon.[25] Given the bucolic nature of the other *Mithrassymbole*, the first hypothesis is perhaps more likely.

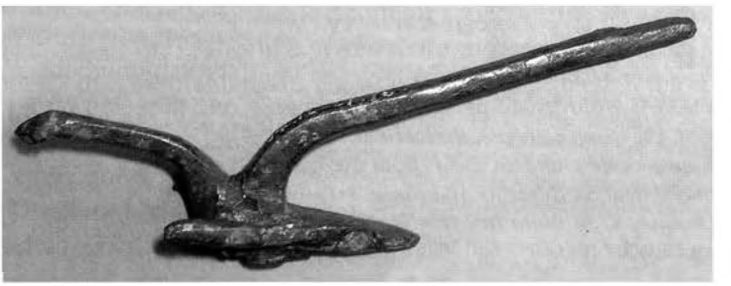


Fig. 8.7. Plough from the Sussex Group of Mithrassymbole. Bronze 1:1 (Author, British Museum.)

At least five *Mithrassymbole* depict a plough, and like the cart to have been made from multiple pieces of joined metal.[26] The Rodenkirchen burial included one that could equally have been attached to the oxen with their yoke. Three further *Mithrassymbole* depict a related piece of agricultural equipment, the harrow.[27] These square grids with a spiked bottom were pulled across the field following ploughing to break up smaller clods of earth. These models are of obvious importance for our under-

25 Entire functional wagons from burials of the second and third century A.D. in Germany and the Danube provinces provide a good idea of what the Roman travelling wagon looked like (Röring 1983). Open carts are depicted on a number of grave monuments of the Mosel region.

26 Cologne Hildegardis Krankenhaus, (La Baume 1971: 80-93); findspot unknown (Behrens 1939a: 5, fig. 5; Ferdière 1988: 48); Rodenkirchen (Haberey 1949); Trier, Heiligkreuz (unpublished, RLM Trier Inv. Nr. PM 352), Sussex (Manning 1966: 71-72).

27 Cologne, findspot unknown (Lindenschmit 1900: 399, pl. 19); Rodenkirchen (Haberey 1949); Brühl (Haberey 1962).

standing of ancient agricultural practice, as being largely wooden constructions, no complete ancient ploughs have survived.[28]

Animals

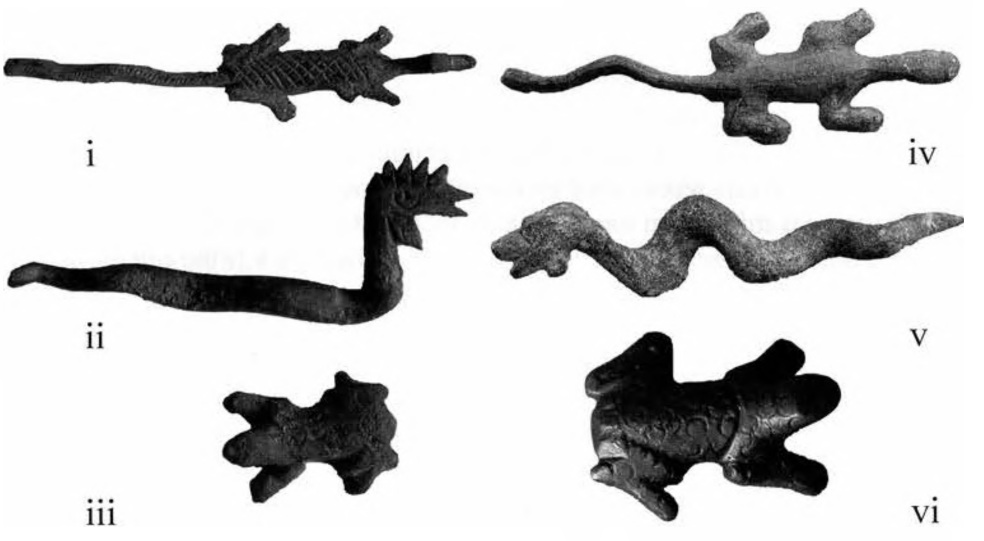


Fig. 8.8.The Principal Mithrassymbole Animals. All bronze, 1:1.
(i-iii: Findspot unknown, probably Cologne Luxemburgerstr. (Römerkastell Saalburg, Niessen Collection, no inv. no.); iv-v: Trier, Manderscheid RLM Trier, inv. nos. 9635,, 9632); vi: Findspot unknown (RLM Bonn inv. no. 1760)). All photos by the author.

Apart from the exceptional oxen found in the Rodenkirchen grave, three animals appear repeatedly amongst the *Mithrassymbole*: toads, lizards, and snakes (**fig. 8.8**). The squat form of the first animal (L. 20-30 mm), and in some cases the addition of stamped circular warts, suggests that they are toads rather than frogs, though the Romans did not actually distinguish between the two species.[29] The next most common animal represented is the lizard, most of which follow the same basic pattern of a plump body with four short legs, a stumpy head with no facial details, and a slightly curved tail (L. 50-55 mm). A similar number of snakes are known (L. c. 60 mm), most of which have curved bodies, a crest on the head, and a beard below the chin, that is typical of Roman depictions of snakes.

8.6. Interpreting the Mithrassymbole

The variety of the *Mithrassymbole* is almost equalled by the number of explanations that archaeologists have put forward to explain them over the past

28 The ploughs can be classified as Gow's type IV (Gow 1914: 256-258). The earliest depictions of ploughs of this type date to the first century B.C., and the latest are probably the *Mithrassymbole*. Gow (1914: 258-259, fig. 10) noted similar ploughs still in use in his own day.

29 Toynbee 1973: 217. Aelian discusses frogs and toads in several sections (*NA* 17.12; 17.15; 9.11; 2.56; 17.41). He frequently mentions their poisonous nature, croaking, and spectacular showers of them.

150 years. Only the most significant of these theories are discussed below, and the exact significance of the symbols remains a mystery.

8.8.1. As Symbols of Mithras

As mentioned in the introduction, and as the name suggests, the *Mithrassymbole* were first attributed to the cult of Mithras. Cumont rejected this connection between the *Mithrassymbole* and the mystery cult on the basis of discrepancies between the models and Mithraic iconography as it is known from Mithraic sanctuaries. Only the snake and ladder are common on the sculpted monuments, and the other objects represented by the models find no parallels.[30] A connection with Mithras is made even more unlikely by the more recent realisation that the *Mithrassymbole* are found exclusively in female burials, while the cult of Mithras was restricted to men.

8.8.2. As Weights

A completely non-religious explanation for the *Mithrassymbole* has been proposed and defended by Röttlander, who noted that the balance was by far the most common type, and that the weights of the other *Mithrassymbole* could be matched to multiples of the Roman *scripulum*. After drawing comparisons to similarly shaped gold weights employed by the Egyptians, and the Ashanti people of modern Sudan, Röttlander concluded that the *Mithrassymbole* were used to weigh gold dust and coins.[31] He had earlier suggested that X's inscribed on some of the *Mithrassymbole* keys were markings of length used to measure pieces of silver cut from bars. This would allow a rough weight to be calculated based on the specific gravity of the silver bar, and a finer measurement could then be taken with the balance.[32] In response to criticism that soon followed his theory, Röttlander reproduced a functional balance of the same size as the *Mithrassymbole*, and used it to weigh some Roman coins.[33] His theory has been too briskly dismissed by later authors, and perhaps deserves more consideration.

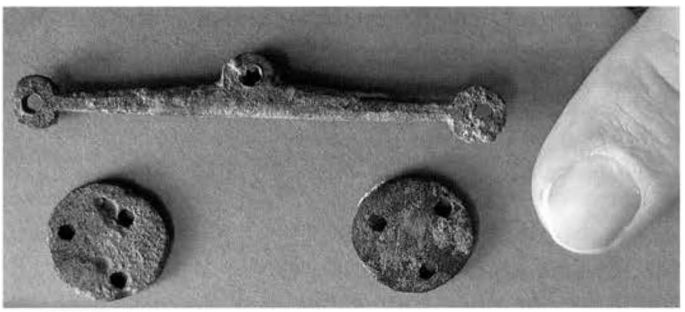


Fig. 8.9. The Size of the Mithrassymbole Balances Demonstrated by an example from an Unpublished Group of Mithrassymbole. Bronze, 1:1. (Author, RLM Bonn, Inv. Nr. U 1388-90).

While the balance reproduced by Röttlander was capable of holding certain *Mithrassymbole* in its tiny bowls, the *Mithrassymbole* chosen (a lizard and a

30 Cumont 1896: 525-526.

31 Röttlander 1974 and 1988.

32 Röttlander 1971: 103-104.

33 Röttlander 1989: 500-503, figs. 2 and 3.

spade) are amongst the smaller types.[34] The larger models would never fit on most of the balances, and the majority of the *Mithrassymbole* scale bowls are far too small even to have been used for coins, gold dust or other powder (**fig. 8.9**).[35] The fact that the holes at either end of several balance beams are sometimes off-centre would also distort accurate weighing, as would unevenly sized bowls. Finally, Röttlander's theory fails to explain burials where the *Mithrassymbole* were not accompanied by either a balance beam or hanging bowls.

8.8.3. As Symbols of Sabazius

A connection between the *Mithrassymbole* and another oriental mystery religion, the cult of Jupiter Sabazius, was first proposed by Blinckenberg (1904) and Schmitz (1956), but was only explored in detail by Manning in 1966.[36] This theory has most recently been adopted by Steures in his discussion of the Nijmegen grave, and is currently the most popular interpretation of the *Mithrassymbole*.[37]

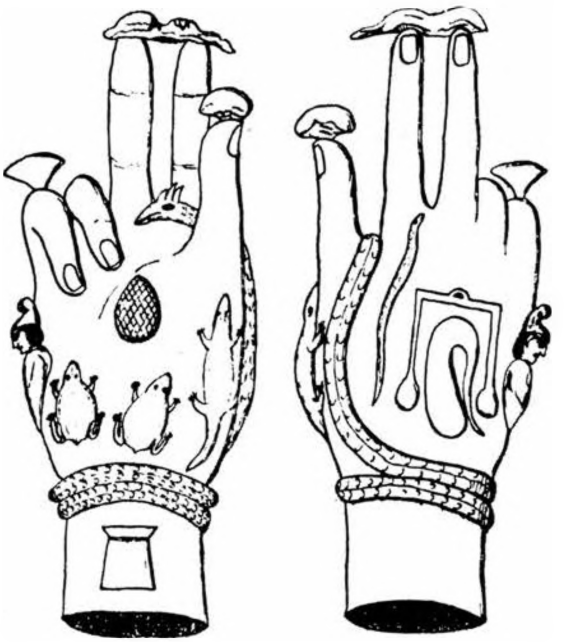


Fig. 8.10. One of the Bronze Hands of the Jupiter Sabazius Cult from Umbria. Now lost, actual size unkown. (From Vermaseren 1983: 124, nr. 27).

As with Mithraism, very little is known about the cult of Sabazius. Diodorus Siculus states that Sabazius was another form of Dionysus, the son of Zeus and either Semele or Persephone. He was the inventor of numerous farming implements, including the plough, and was the first to harness oxen.[38] Thus Manning was able to see a connection between the yoke, and other farming implements represented by the *Mithrassymbole*. Other objects – the balance beam, the ladder, the bell, snakes, frogs, and lizards – can also be found on the bronze hands that are typical of the Sabazius cult (**fig. 8.10**). Nearly 100 Sabazian bronze hands are known throughout the Roman world. They consist of a right hand, terminating at the

34 Röttlander 1989: fig. 3.

35 This point has already been made by Noelke 1984: 416.

36 Blinckenberg 1904: 115-122; Schmitz 1956: 134-135; Manning 1966.

37 Steures 2004.

38 Diod. Sic. 3.64.2 and 4.4.41; Manning 1966: 52-53.

wrist, with the two small fingers bent to form the *benedictio Latina* gesture.[39] A variety of strange symbols sprout from the bronze hands, and many bear dedicatory inscriptions to Jupiter Sabazius. They served as either free-standing votives, or were attached to the tips of cult standards.

As Manning himself admitted, many of the symbols and images on the Sabazius hands are not to be found amongst the *Mithrassymbole*. These include the pinecone, the *krater*, the knife, phalli, the *caduceus*, the raven, torches, a wooden log, depictions of Sabazius himself, other divinities, and a scene of a woman nursing a child in a cave. Moreover, various *Mithrassymbole*, (*e.g.* the yoke, the key, the *ascia* and *dolabra*, harrows, the shovel *etc.*), are not found on the Sabazius hands. While iconography of Sabazius certainly fits the *Mithrassymbole* more closely than that of Mithras, the fit is not perfect. Moreover, as Noelke has observed, the Sabazius cult is attested throughout the entire Roman Empire, whereas the *Mithrassymbole* are largely restricted to Cologne.[40]

Between 1983 and 1989, a three volume corpus and commentary on the cult of Jupiter Sabazius was published by Lane and Vermaseren.[41] This important work provides more evidence against a connection between the *Mithrassymbole* and Sabazius. First, the identification of Sabazius with Dionysus seems to appear only in the literary sources, and not on inscribed or sculpted monuments. Diodorus' writings of the first century B.C. are not entirely applicable to the late antique cult. More importantly, Lane did not find an agricultural element to the Sabazius cult, and evidence for women participating in the cult of Sabazius is thin. Like Mithraism, Sabazianism was probably dominated by or even restricted to male participants.[42]

8.8.4. A Germanic Tradition as Magical Amulets and Jewellery.

Magical interpretations of the *Mithrassymbole* were hinted at in the early 20th century, but the models certainly have no connection to the inscribed lead purses or the procedures outlined in the Greek Magical Papyri. Unlike lead curse tablets, the *Mithrassymbole* are clearly not later intrusions into burials. A more convincing magical explanation sees the *Mithrassymbole* as possessing an apotropaic function.[43] Miniature scissors, knives, probes (nail cleaners), tweezers and awls, are frequently found in Germanic urn burials from north eastern Germany dated between the second to the fourth centuries A.D. They are found in both male, female and infant burials.[44] A study of these miniatures from north-eastern Germany by Beilke-Voigt, convincingly demonstrates that they were worn on the

39 See Vermaseren (1983) for a catalogue of known examples.

40 Noelke 1984: 416.

41 Vermaseren 1983; Lane 1985 and 1989.

42 Lane 1989: 45. There are essentially only three inscriptions recording dedications by women to Sabazius: Lane 1985: nos. 58, 63 and 76. Hanel (2004) has interpreted certain bone hair needles with hand and snake terminals as further evidence for female Sabazius worshippers.

43 Lehner 1924lb: 51, note 4; Bös 1961: 30.

44 Beilke Voigt 1994: 103-119.

clothing of the deceased, usually suspended from the belt, and may be considered to have had an amuletic function.[45] Miniatures similar to those found in eastern Germany have also been found in Westfalen in post-Roman Germanic burials.[46]

Although the miniatures Beilke-Voigt studied have considerably different forms than the *Mithrassymbole*, a gold necklace from the first Szilágysomlyó hoard (Hungary), found in 1797 and dated to the third century A.D., has numerous similar attachments.[47] These include a miniature plough, a double yokes, a ladder, and various hammers and axes, but also scissors, probes, and a canoe with small figure in it. Germans were certainly settling on the Roman side of Rhine in the period in which the *Mithrassymbole* were produced, but the character of the graves with *Mithrassymbole* is entirely Roman. They lack the weaponry, bone combs, *fibulae* and other objects associated with Germanic burials. While Germanic miniatures are typically found in cremation burials, the *Mithrassymbole* are almost all from inhumations. Finally, the Germanic miniatures were pierced or looped so as to be worn, whereas it is difficult to imagine a means of wearing the plainer *Mithrassymbole.*

8.8.5. As Symbols of Fertility and Wealth

Linfert-Reich saw the *Mithrassymbole* as part of both a pagan and Christian tradition of a garden paradise in the afterlife, with the symbolism of the models directly related to the bucolic imagery of Virgil.[48] Once again, this fails to explain the use of the *Mithrassymbole* exclusively in female graves. Moreover, one might hope that a spiritual garden paradise would not need to be intensively farmed, ploughed and cultivated by its inhabitants, but would rather yield fruit without effort.[49] Haberey saw the predominance of farming tools and the choice of animals as connected to the earth and fertility.[50] Bös also stressed the chthonic nature of the *Mithrassymbole*, and argued that they represented a local cult of farmers and craftsmen.[51] The recent interpretation of Beilke-Voigt refrains from connecting the *Mithrassymbole* to any specific divinity, and prefers to see them primarily as fertility symbols that were owned by a group of women concerned with fertility and reproduction. The form of the symbols themselves she sees as being adapted from a combination of Celtic, Roman and oriental cults that reflected the religious atmosphere in late antique Cologne.[52]

45 Beilke-Voigt 1994: 120.

46 Polenz 1985: 82-87, figs. 36-37 and 51-52.

47 Beilke-Voigt 1994: 124-125, fig. 17.

48 Linfert-Reich 1974: 170.

49 This is certainly the case in the Golden Ages of Hesiod and Virgil to which Linfert-Reich also seems to relate the Mithrassymbole. Noelke (1984: 416) noted that it also fails to explain the meaning of the animal *Mithrassymbole.*

50 Haberey (1949: 104) speaks of '*Fruchtbarkeitszauber.*'

51 Bös 1959: 30.

52 Beilke-Voigt 1998: 92-94.

There is clearly a connection between the symbolism of the *Mithrassymbole* and farming and the earth, but the significance of this connection remains unclear. One might consider the models as indirect symbols of material wealth both in the field (the farming tools) and in terms of financial success (the scale and the key). Scenes of agricultural and industrial activity appear on a variety of stone funerary monuments in the Rhineland, and were intended to impress upon the viewer the importance, wealth and industry of the deceased in life. Located on the edges of cities and alongside major roads, these monuments also served as advertisements of social status for the living families and heirs.[53] The monuments are, however, somewhat earlier than the symbols – late second to mid-third centuries – and are spread out over a wide area. Whereas the *Mithrassymbole* are only relevant to agricultural activity, the grave monuments also include a variety of other industries such as smithing and baking. Finally, the grave monuments tend to show portraits of deceased men holding tools of their trade – hammers, pruning knives or money boxes; whereas the deceased women are portrayed holding signs of their beauty – jewellery, perfume bottles, mirrors and *scrinia*. Unlike the sculptures, the *Mithrassymbole* were not only specific to women, but were buried with them, and their symbolism was invisible to later generations.

8.8.6. Some New Ideas

The main problem with current interpretations is that they have ignored the archaeological context of the *Mithrassymbole*, and focused entirely on their symbolic value. It seems unlikely that the *Mithrassymbole* were manufactured specifically for a funerary rite, in spite of the fact that they are known exclusively from burials. Unless they are the one exception, objects manufactured specifically for use as grave goods are unknown in late antique burials. This is a major point against a purely symbolic approach to the understanding of the models. While their symbolic value is clearly important, it is not the only clue to their meaning. The *Mithrassymbole* come exclusively from very rich late antique female burials and are usually found together with perfume bottles, jewellery, coins, and shells, sometimes in boxes known for containing the accoutrements of female beauty. These are facts which need to be taken into account.

A group of miniature lead alloy vessels frequently found in the burials of Roman women and girls have been described as toys in the chapters above (**6.6**). It will be recalled that Martin-Kilcher saw these miniature objects as symbols of a *mors immatura* – an untimely death, and a potent symbol of their unfulfilled existence. For Martin-Kilcher the lead models were not so much toys that were actually played with, but rather symbols of childhood that were owned and kept by Roman girls up until their marriage.[54] Given their context, can this interpretation be applied to the *Mithrassymbole* as well? Plautus describes one set of children's toys, *crepundia*, as including: a golden sword (*ensiculum*), a double

53 Künzl 1990: 181-182; Hatt 1951: 192-194.

54 Martin-Kilcher 2001: 67-69.

axe (*securicula ancipes*) inscribed with the names of the parents, a silver sickle (*sicilicula*), a pair of joined hands (*conexae maniculae*), a windlass (*sucula*) and a golden *bulla*.[55] These objects referred to in the text do not correspond exactly to the Mithrassymbole, and Plautus wrote in the third century B.C., but they are also tools rather than miniature dishes and vessels. Only two of the burials with *Mithrassymbole* contained the remains of children, and none of the burials, unlike those discussed by Martin-Kilcher, included dolls, puppets or other objects that might be identified as toys.[56]

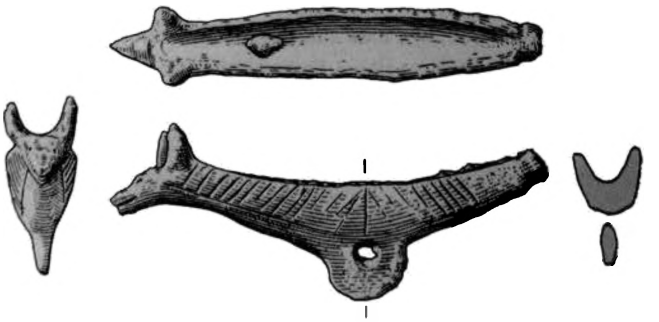


Fig. 8.11. A Bronze Romano-British Cosmetic Grinder. 1:1. (After Jackson 1993: fig. 2).

The presence of *Mithrassymbole* in *scrinia*, the Roman woman's beauty box, and the constant occurrence of jewellery and perfume bottles in close association with the *Mithrassymbole* is surely significant. Roman make-up and perfume was not purchased ready to wear, as it is today, but had to be prepared immediately prior to use. Typically, a dry substance was ground up and mixed with an oil base.[57] A series of crescent shaped amulets with animal head terminals (**fig. 8.11**) from second century A.D. British graves seem to have been used for grinding cosmetic substances. They incorporate a deep central groove, and were typically suspended together with other toiletry instruments.[58] Is it possible that the *Mithrassymbole* had some kind of an amuletic function relating to the make-up and beauty equipment with which they were stored? This does not, of course, explain the agricultural symbolism of the *Mithrassymbole*, but it is perhaps a direction worth looking in.[59]

8.7. Conclusions on the *Mithrassymbole*

For the main purpose of this study, we may firmly and safely conclude that the *Mithrassymbole* have nothing at all to do with miniature and model votive offerings. The tendency of authors to compare the two is only misleading and

55 Plaut., *Rud.* 1150-1170.

56 Cologne, near St. Severin, (Päffgen 1992: 1.257-259, fig. 70); Roermond, an adult female and child (Smeets 2003: 89-92).

57 Forbes 1955: 28-38 (on perfumes) and 38-43 (on make-up); Sigismund 1884; Faure 1987.

58 Jackson 1985 and 1993.

59 Roman literature sometimes draws an analogy between the beautiful body of a woman and a well cultivated and fertile field. E.g. Ov. Medic. 1-9 and Ars am. 3.101 and 159. See also Pliny H.N. 28.48.

should be abandoned. These models are a very specific and localised type of grave good, not votive offerings.

The *Mithrassymbole* themselves have been something of an archaeological puzzle for well over a century, and there is still no definitive explanation for them. In this chapter we have seen that they are found exclusively in the richest female burials, dating from the early third to late fourth centuries A.D., and that they are generally found in association with cosmetic items. It is possible that the as of yet unpublished material in Cologne will eventually provide a defining clue as to their meaning, but any further advancement will need to take into account not only the symbolism of the models but their archaeological context as well.

9. CONCLUSIONS

9.1. Miniatures and Models as a Heterogeneous Group

At the end of this study, it is clear that miniature and model votive offerings from the north-west provinces of the Roman Empire are a far less homogenous group than has hitherto been realised. Their place in the history of Romano-Celtic religion needs to be re-evaluated, and individual types considered separately. Many of the objects usually described as miniature and model votive offerings have been found to have served non-ritual functions. At the outset of this study, three major approaches to the material were outlined (**1.4**). We are now in a position to see how the assembled body of evidence corresponds to those approaches, and to evaluate the contribution of miniatures and models to our understanding of Roman provincial society and religion.

9.1.1. Models as Substitutes

Only certain groups of miniature weapons, ceramic and lead discs, and rare instances of model jewellery and possibly miniature cauldrons can be understood as direct substitutes for the things they represent. In the case of miniature arms and armour (**2**), the models are substitutes for the masses of war booty that were dedicated in the middle to late Iron Age. Similarly, coin sized lead and ceramic discs (**5.2**), as well as a few impressions of coins on thin bronze sheets (**5.3**), seem to have been used occasionally to pad out groups of real coins or to replace coin offerings completely. The early Roman dating and large numbers of the discs, however, suggest that they are substitutes for the large scale deposition of precious metal coins that was a trait of Iron Age religion. The same argument can probably be made for the imitation *fibulae* found at Digeon (**7.1**), though these objects seem to be unique. Finally, the various miniature cauldrons from Britain (**6.3**) should probably be seen as substitutes for life-sized vessels – another object that falls into the category of high value prestige goods.

Interestingly, it does not seem to have been normal for individuals to dedicate models of their weapons, tools or possessions in place of the original. There are practically no model objects representing personal possessions that were used as substitutes. The odd occurrence of individual miniature swords and shields on sanctuary sites probably represent strays that have escaped larger groups like those found at Mouzon (**3.3**) and Salisbury (**3.2**). Other individual miniature weapons are nothing more than misidentified dress accessories (*e.g.* **3.6-8**).

9.1.2. Models as Special Votive Objects

The proposition that miniature votive offerings were more acceptable gifts than the objects they represent is more difficult to evaluate. This theory is not, of course, mutually exclusive to the concept of models as cheaper or more convenient substitutes. A model could be both cheaper and more pleasing for the gods. Conclusive proof of such a religious mentality might take the form

of a miniature or model votive offering with a value that was obviously much higher than its prototype, but this has not been encountered. The metal value of the entire Salisbury hoard (**3.2** and **6.3**) was certainly very high. The repairs made to the model shields suggest that their significance went beyond the role of mere replacements. Still, the inclusion of model cauldrons and shields was certainly a major saving both in terms of value and space. Miranda Green has suggested that the use of miniature votive offerings was analogous to the ritual breaking and destruction of other objects. By virtue of being non-usable, the models were placed in the realm of the divine.[1] The intentional mutilation of model weapons from Mouzon (**3.3**) may have served to intensify their non-functionality, but it seems more likely that the act was meant to imitate the destruction of real weapons in the Iron Age. Moreover, the ceramic and lead discs representing coins (**5.2**) were sometimes used alongside genuine coins, and also seem to have been intentionally damaged. If the gods preferred models as special votive offerings, why use the real thing at all? Models with a primarily symbolic value (see below) were non-functional anyway, and it was their symbolism that made them acceptable dedications rather than their size.

9.1.3. Models as Symbols

Many of the objects described in this study are best understood in terms of their symbolic value. These can be divided into two groups – those which represent the attributes of divinities, and those which represent activities performed by humans.

The most important group of miniature objects representing the attributes of a divinity are the metal wheels and the related metal rings (**2**). Found throughout the study area, they are best understood as symbols of the Romano-Celtic Jupiter/Wheel god. Sporadic finds of hammer and mallet heads (**7.2.2**) probably represent the main attribute of Sucellus. The dedication of single elements taken from the iconography of individual divinities was a common method of honouring the gods. Thus miniature bronze goats, turtles and *caducei* could be offered to Mercury independent of a complete representation of the god.[2] The dedication of plaques representing a horse to the Celtic goddess Epona at sites like Châteaubleau shows that this means of honouring the gods was employed for non-classical deities as well.[3] The finds of wheel models in late Iron Age contexts demonstrate that the dedication of the essential attributes of deities was not a purely Roman innovation.

The common bronze model axes (**4**) are best understood as symbols as well, but they are not the materialisation of any given divinity's attributes. They may simply be representations of divine power (**4.12.3**), and as such appropriate offerings for all deities. A link between the deposition of the miniature axes and the occasional appearance of prehistoric axe heads in Romano-Celtic sanctuaries

1 Green 1986a: 222 and 1987: 239-241.

2 Henig 1993a: 103.

3 Bontrond 1998.

is certainly possible, though not yet proven (**4.12.2**) It is more likely, however, that the model axes represented the main tool used to kill animal victims in both Celtic and Roman sacrifices (**4.12.4**). In the Roman world, the same tool (the *sacena*) evolved into an important piece of non-functional priestly regalia. Whether the models stood in for sacrifices that never took place, or served as memorials to those that had already happened, is unclear. The lack of miniaturised votive tools representing craftsmanship and industrial activity is surprising. It is unfortunate that so little is known about the miniature iron tools found in the late 19th century at Lachau (**7.2.1**). Other miniature objects proposed for this role are rare and usually better explained as functional items or as the lost fragments of bronze statuettes or even as functional tools. (see **7.2.2-5**).

9.1.4. Functional Objects

The well known cliché of the archaeologist identifying anything he or she cannot otherwise explain as 'ritual' has been encountered several times in the course of this study. In some cases, such as the sword-shaped pocket knives (**3.6**) and toiletry utensils (**3.7**) this has been quite understandable, but there does seem to be an unfortunate tendency to identify all miniature objects as votive offerings. The use of miniaturised forms was a simple means of making otherwise boring daily objects more interesting. The relegation of most miniature ceramic vessels and lamps (**6.1** and **6.2**) to the realm of functionality (even if in the context of ritual eating and drinking) is perhaps one of the most surprising conclusions of this study. The high number of small finds found on many sanctuary sites is, of course, partly the result of continuous votive deposition, but the same sites were also the location of mundane daily activities that have also left a corresponding mark in the archaeological record.

9.2. The Relationship between Miniature Grave Goods and Votives

Though constantly compared to miniature votive offerings in archaeological literature, the so-called *Mithrassymbole* (**8**) are a completely unrelated phenomenon. They are a very specific type of grave-good, and are limited to late antique burials around Cologne and its vicinity. As a whole, very little overlap between miniature grave goods and votive models has been observed. Miniature ceramic vessels (**6.1**) and lamps (**6.2**) may be the one exception, but a case has been made here for the functional use of both types. Miniature lead alloy tableware (**6.5**) occurs in both sanctuaries and burials, but it is probable that these objects represent toys rather than specially made votives. We might imagine a scenario in which models are considered appropriate as votive offerings for the gods, but not for the deceased, who require the real thing – either for their own use in the afterlife, or to present to the divine powers they encounter there. But the gods do not seem to accept miniaturised substitutes for personal possessions as votive offerings, and the lack of miniaturised personal goods in graves is mirrored in the

temples. It seems that there were distinct sets of rules that decided what was an appropriate offering in each case.

9.3. Models as Reflections of Reality

If nothing else, it should be obvious that the contribution of the models and other votive offerings to our understanding of Roman provincial religion must rely heavily on the detailed study of individual types. In this respect, one of the major problems encountered in this study has been the lack of background information on the objects that the models represent. The current state of our knowledge about Roman *realia* and day-to-day objects is surprisingly poor. In what seems to be an on-going reaction against the connoisseurship approach of the 19th century, the study of smaller archaeological artefacts has been largely abandoned by modern archaeologists as a pedantic archaism.[4] The concentration of archaeologists on artefact studies in particular areas, and the lack of interest in the same objects in others, has served to distort our understanding of distribution.

As a possible source of information about the objects they reproduce, miniature votive offerings remain something of an unexploited resource. Some of the models are very exact reproductions. These include the Mithrassymbole (**8**) and model axes (**4**), which show the otherwise lost wooden elements of tools. The curved hafts and blade coverings of the model axes (**4.11**) would be otherwise unknown to us were it not for the models. The comb-yokes (**8.7.2**) and the ploughs and harrows (**8.7.10**) depicted by the *Mithrassymbole* are far more detailed representations of objects that are otherwise known only in sculpture, mosaic or wall painting.

Other models are purely schematic representations. This includes the lead and ceramic discs that represent coins and many of the miniature weapons from Mouzon (**3.3**). These models were meant to be recognisable, but not exact. Specific details were schematised, and the elements perceived as essential were emphasized. Thus the coin models are solid coin-sized discs (**5.2**), while the essential roundness of spoked wheels could also be represented by metal rings (**2.5**). Many of the sword-shaped pocket knives discussed alongside the other miniature weapons (**3.6**) are fantasy weapons, with more in common with gladiatorial weapons than military swords. In this sense, the schematic models are not unhelpful for the study of *realia*, as they reveal what elements of an object stood out most in the minds of the ancient beholder.

The reflection of ancient reality in miniature is, however, only a subsidiary use of the votive models as a study object. The material has also been seen to provide clues to the more important issues of the mindset and identity of the ancient dedicator.

4 On the hesitation of archaeologists to deal with dedicated artefacts see Osborne 2004.

9.4. The Identity of the Dedicator

The first major question concerns the personal identity of the dedicators of miniature and model votive offerings. Are we dealing with single individuals, members of the social elite, or multiple donors? As the shift towards the use of personal votive offerings occurred in the late Iron Age and the early Roman period, this question is essentially connected to the broader question of ethnic identity.

As reflections of Iron Age communal and elite depositions, the substitutional votive models are almost certainly not the offerings of the average individual. While the form and value of the offerings had changed, it seems unlikely that the identity of the dedicators had not. The clustering of substitutional models in large numbers in single archaeological contexts shows that we are not dealing with ongoing deposition by individuals, but with single and short term ritual acts. It is likely that this kind of deposition was still undertaken by communities or small groups of elite individuals, just as it had been in the pre-Roman period when actual high value objects were used. The same process can be seen in the case of miniature wheels and rings, which evolved from a group ritual, in which hundreds of miniature wheels and rings were deposited at once, into an individual ritual in which single and better quality rings were dedicated. Inscribed examples show that by the Roman period, both miniature wheels and model axes could be dedicated by individuals.

Ethnic identity, and the processes of acculturation and Romanisation, are currently the major preoccupations of archaeologists and ancient historians working in the Roman West.[5] Religious practices play an important role in discussions of ethnicity, because religious belief is often considered an intricate part of ethnic identity, and because religion is one area in which one might expect to find the perseverance of pre-Roman traditions. In Rome's north-west provinces, the tendency has been to document religious adaptation on the basis of changes in temple architecture and the combination of divine names on inscribed monuments, but as Woolf so admirably observes "The grand monuments and great sanctuaries should not overshadow humbler but parallel transformations of the ritual system."[6] One might even go one step further. The dedication of small votive offerings, however humble, actually represent the actions of far more people than the construction of temples and the use of inscriptions do. As such, they have the potential to be an even better source of information about changing beliefs.

The early dating and nature of the substitutional models makes it most unlikely that their dedicators considered themselves primarily as Romans. It is highly significant that we do not have any evidence for substitutional votive offerings

5 Two recent major works, which include further bibliography, are Woolf 1998 and Mattingly 2004.

6 Woolf 1998: 226.

of typically Roman objects. The miniature weapons and other prestige goods represent a short lived transitional phase, which looked back on Iron Age ritual far more than it adapted to the new order. As such, its demise was a natural part of the change to a more Roman mode of life.

The dedication of miniature wheels and axes are more complicated phenomena. Both have roots in the Iron Age, and both were modified, but also continued, under Roman rule. In the late Iron Age, huge quantities of wheels and rings made of bronze and lead were deposited in trenches and pits (**2.3**). In the Roman period, the dedication of single miniature wheels by individuals became possible. Some of these, such as the examples from Matagne-la-Grande and Augusta Raurica (**2.4**) bore inscriptions designating them as offerings to Jupiter. It is important to note that wheels seem to relate to the same god both before and after the conquest. Outside the realm of votive offerings, the wheel also continued to be used as a worn amulet, and was adapted into the repertoire of the plate *fibulae* (**2.2**) in the second century A.D. The use, and to some extent the form, of the miniature wheels changed, but their symbolic value did not.

Miniature axes were never used as massive propitiatory offerings, but the presence of examples outside of the Roman world makes it clear that they too stem from an Iron Age tradition (**4.9**). If anything, their use seems to have become more popular in the Roman period. In most of the study area, the miniature axes copy Roman forms of the shaft hole axe. In Switzerland, however, the axe models copied Iron Age socketed axes well into the Roman period, sometimes bearing dedicatory inscriptions in Latin. This occurred even after the models became abstract representations of the socketed axe. The only name to appear on an axe model (**SU27.i**), Decimius, is clearly Roman, whether or not the dedicator was provincial born or came from the heart of the Eternal City itself.

9.5. Big Prayers and Little Gifts – What Did the Dedicators Want?

The most difficult question for the archaeologist to answer about miniature votive offerings was also the most important for the dedicator. What was expected from the gods in return for these offerings, or for what services were divine powers thanked with them? The *do-ut-des* model can be considered appropriate for Roman votive offerings, with the relationship between the gods and mortals being characterised by constant bargaining.[7] But what did the gods offer in exchange for the miniatures and models?

With the symbolic models, the dedicant could have desired almost anything imaginable, but as the attributes of gods reflect the domains for which they are responsible, it may not be unreasonable to imagine the dedication of miniature attributes as reflective of desires proper to those domains. Thus we might assume that the dedication of miniature wheels was relevant to the principal domain of the Romano-Celtic Jupiter/Wheel god – the sun. The perceived movement of this

7 Gschlößl 2006: 67; Henig 1984: 143-148.

most important of the astral bodies was directly connected to earthly agricultural concerns. The use of miniature wheels in mass dedications in the Iron Age may well relate to important prayers and rituals concerning the growth of crops that affected the entire community. If the model axes are relevant to animal sacrifice, then the model axes may relate to any of the reasons one might offer an animal sacrifice. These were many, however, and ranged from regular calendar rituals to the *solutio* of personal vows.

It is important to note that we have hardly any evidence for the use of miniature votive offerings to represent the actions or desires of individuals. The bronze boats and feet sometimes seen as votives relating to personal travel (**7.3**), are more likely to have been the bases and feet of ordinary bronze statuettes. There are no miniature tools that might represent the desire of a craftsman to increase his trade, and no individual weapons or armour to directly represent the needs of Roman soldiers. Naturally there are other votive offerings where this is the case, of which anatomical representations, are certainly the most important.

It would be naïve to consider any votive offering as part of a transaction conducted exclusively between the gods and men. There was a major element of human to human interaction involved in votive deposition as well. The high value offerings of the Iron Age were meant to reinforce the social position and status of their dedicators, and to impress other mortals as much as the gods.[8] It is hard to imagine any of the substitutional votive miniatures being terribly impressive. This lack of dazzle may well partly explain the short duration and geographical restrictions of their use. In the earliest period of Roman occupation, there may have been some genuine concern that the divine powers were no longer receiving their due in the form high value offerings, which the substitutional models attempted to redress. This sort of communal religious anxiety did not last long.

The new Roman system offered better ways for individuals to obtain social prestige in the sphere of religious activity. They could commission, construct and dedicate impressive sculpted stone monuments and temple buildings. Even miniature votive offerings would have been placed on display. The inscriptions and incised patterns on miniature axes and wheels, with their odd tendency to appear only on the left side of the axes (**4.11**), were clearly meant to be read by viewers. But the same is true of other small votive offerings such as silver plaques and pipe-clay figurines. Even on a low level, the dedication of votive offerings in the Roman period seems to have included an element of social display as well as an expression of piety.

9.6. The Mechanisms of Change. Why Miniatures and Models?

The switch from high value offerings to low value offerings was underway prior to the Roman conquest. The use of models to replace high value offerings seems to have already begun in the late Iron Age, as finds such as the Salisbury

8 Roymanns 1990: 84.

hoard suggest. The final arrival of the Romans served to intensify changes in economic conditions and the structure of society which were already in motion. It was these economic changes that resulted in the use of substitutional models far more rather than active Roman restrictions of particular activities, or the prohibition of weapons. The same changes soon put an end to the need for such dedications, as the development of new social strata were able to approach the gods in a new way.

Perhaps more interesting than the end of the substitutional models is the perseverance of the symbolic miniatures. Even in the Iron Age, the mass dedication of miniature wheels must have been a cheaper ritual than the dedication of precious metal or war booty, even if these models were not direct substitutes. The more sophisticated nature of these dedications may have been the key to their survival and transformation into personal offerings. Whereas the substitutional models became irrelevant to individual worshippers, the use of symbolic models became more attractive. The reasons for this are less clear, but it may have had something to do with the more rigid Roman system of divine iconography. The attributes and forms of the gods were generally more localised and fluid in the Iron Age. The miniature and model symbols studied here represent only a small fraction of similar objects used as ritual dedications, as we have considered only those models that copied day-to-day objects. Most other symbolic votive offerings did not.

9.7. Conclusion

This entire study has been based on one particular type of votive offering, the identity of which has turned out to be a modern rather than an ancient construct. This serves as a stark reminder that finds from ritual sites must be considered very carefully and in a broader context before conclusions about their ritual function are drawn. Miniature and model votive offerings shed light on the changes in religious practice between the late Iron and Roman periods. They functioned both as symbols and substitutes to meet the needs of both individuals and communities. The nature of the human needs they represent and the functional mechanism of miniature and model votive offerings are necessarily speculative topics. By studying the contexts, chronology and distribution of these artefacts in conjunction with their symbolic value, one may hope that such speculation will rest on somewhat firmer ground.

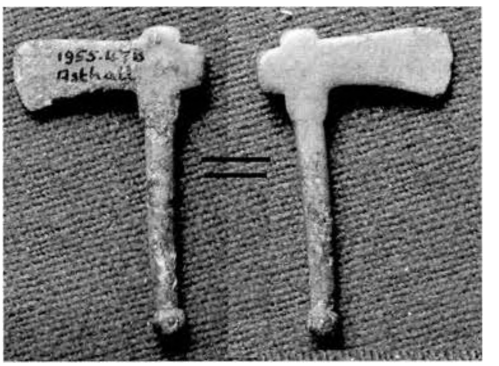
APPENDIX 1: CATALOGUE OF MODEL AXES

The catalogue is organised by country, then numbered by the name of the findspot with a Roman numeral given to the individual miniature axes in the event of multiple examples occurring on the same site. The main name of the site comes first, followed by broader geographical regions, such as the department or county. Most of the British finds include four digit co-ordinates from the National Grid System. Large archaeological complexes with multiple sites, such as Avenches, have been given catalogue numbers for each site within the complex, and in some cases a number for older finds with no exact findspot.

The sites are listed alphabetically after the name of the findspot, but this is purely for convenience. Future additions to the catalogue could simply be given a sequential number following the last number in this catalogue.

The descriptions of the models are in italics, and follow the terminology outlined in **4.2.** The scale of the illustrations is always 1:1, unless otherwise noted. Where no credit is mentioned and quotation marks are used without citation, the source is the Portable Antiquities Scheme database.

BR1. Alchester (Author, Ashmolean Oxford).



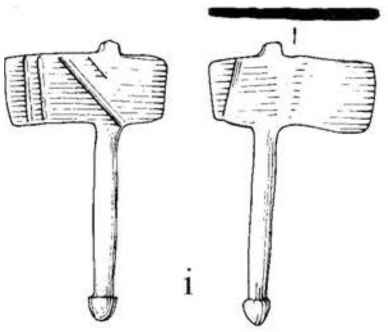
BR2. Asthall (Author, Ashmolean Oxford).

Britain (BR)

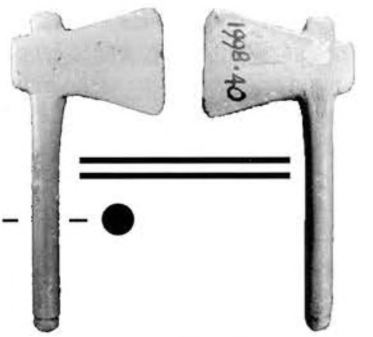
BR1. Alchester, Oxfordshire (SP 5720). Green suggests that it is possible that this model is from a Romano-Celtic temple within the town, while Kirk thought it may have originally been a Woodeaton find that was mixed up with this site. *A miniature bronze axe with curved rectangular blade. The thin haft may well have been cast separately and added later. L. 35 mm, blade 25 mm, Th. 6-1 mm, Wt. 8.73 g. Type 1A.*
Current Location: Ashmolean Museum. Inv. Nr. 1946.238.
Biblio: Green 1975: 62, no. 7, fig. 2; Kirk 1949: 33 (a), fig. 8.2.

BR2. Asthall, Oxfordshire. (SP 2811). A stray find near three 'ritual' pits. *Miniature bronze axe with haft terminating in a round knob. L. 40 mm W. 25 mm, Wt. 6.77 g. Type 3A.*
Current Location: Ashmolean Museum. Inv. Nr. 1955.478
Biblio.: Green 1975: 62, 8, fig. 2.7 (erroneously illustrating an axe with no provenience from Kent) Green 1976: pl. 28n (mistakenly described as 'unprovenienced, Kent'.)

BR3. Baldock, Hertfordshire. A large site dating from the mid-first century B.C. to the fourth A.D. The site is badly understood, but certainly contained both a settlement and a graveyard. A Romano-Celtic style temple (site M) was been identified by aerial photography nearby. There is evidence for ritual activity on site A, which included a round structure surrounded by a ditch. A series of pits were found in the north-east side of this enclosure. Other model finds include a complete miniature spear **(3.10)**, and possible miniature spearheads **(3.9)**. *i)* Found in a pit (feature A11), with a bronze fibula, an iron tube, and pottery dating to 180-220. *Bronze model axe with circular haft terminating in a hemispherical knob. The flat blade is rectangular with a large nape, and the haft protruding slightly from the top. On the blade L: two diagonal and two parallel lines; blade R: one diagonal line. L. 37 mm W. 21 mm. Type 1C.*



BR3. Baldock. (From Stead and Rigby 1986: figs. 60 and 65).

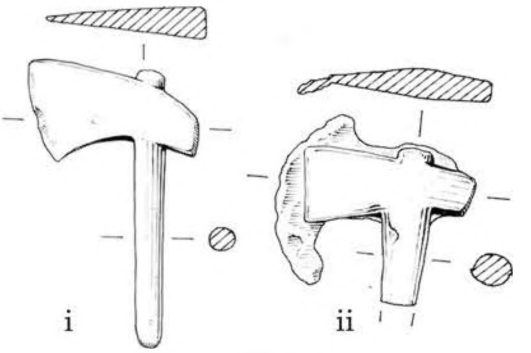


BR4. Bicester. (Author, Ashmolean Museum).

ii) Found in the periphery ditch of the possibly ritual enclosure (feature A90).[1] *Other finds included a fibula, a bronze ligula (ointment scoop), Antonine period terra sigillata, a pair of tweezers, a bronze stud, and third and fourth century coins. A bronze axe, with circular haft terminating in a knob. The upper face of the blade rises steadily from the large nape, the lower face curves upwards; it is wedge-shaped in cross section. L. 20 mm, W. 19 mm. Type 3A.*
Biblio.: Stead and Rigby 1986: 136 nos. 378 -379, fig. 60 and 65.

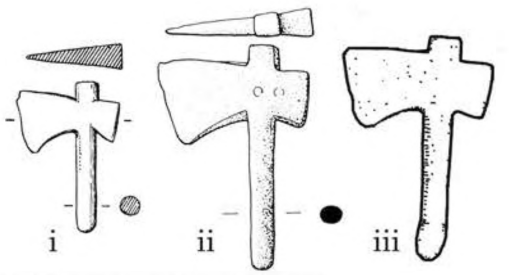
BR4. Bicester, Oxfordshire. (SP 5822) Found in the garden of 37 Avon Crescent. *Bronze axe with a round haft that protrudes slightly above the blade. Beginning with a rectangular nape, the upper and lower faces diverge to form a symmetrical and triangular blade. Blade left: a single circle and dot motif. L. 42 mm, W. 20 mm, Wt. 6.09 g. Type 4.*
Current Location: Ashmolean Museum, Inv. Nr. 1998.40.
Unpublished.

BR5. Blankley, Lincolnshire. (TF 0836) Two metal detectorist finds.
i) A bronze axe with a round haft and wedge shaped blade. The upper face and lower face form parallel curves that are continuous from the back of the nape to the bit. L. 37 mm, W. 22 mm. Type 3A.
ii) Similar to last, but blade is not perfectly wedge-shaped in cross section but rather expands slightly around the housing. The upper faces rises in a continuous curve from the back of the nape, while the lower face is positioned slightly higher at the nape. The piece seems to be unfinished, as the flash (overspill) from the joins of the bivalve mould have not been removed. The haft is broken. L. 19 mm, 23 mm. Type 3A.
Biblio.: Portable Antiquities Scheme No. LIN-F68BB4 and LIN-F66B61.



BR5. Blankley.

BR6. Brigstock, Northamptonshire (SP9150). A Romano-Celtic temple site with a circular shrine in which a a model stand **(6.4),** two pole-tips, *fibulae*, pottery, animal bones, coins, and bronze horse and rider figures were found. Ceramic finds suggest a foundation date of A.D. 250 for the circular sanctuary, but coins on the entire site range from the first to fourth century A.D. A penannular ditch to the



BR6. Brigstock. (i: from Greenfield 1963: fig 5.6; ii: from Dix 1986: fig. 2; iii: (Author, Drawn from PAS photo).

1 The excavators dated the ditch to the third century, presumably on the basis of the Antonine pottery. The presence of the fourth century coin, however, gives a later *t.a.q.* for the filling material.

south of the building suggests a late Iron Age ritual site, but there is little evidence for activity in this period. The entire site had been badly damaged by ploughing.
i) Found inside the circular shrine. Bronze axe with a circular haft that protrudes above the blade, which is wedge-shaped in cross section. The upper and lower faces of the nape slope upwards towards the housing, while the upper and lower faces of the cheek are curved. L. 20 mm, W. 13 mm. Type 3A.
ii) Found during field walking in 1986 along with another horse and rider statuette. As last, but blade left: two circles incised on the housing. The body of the haft is round, but emerges rectangular above the blade L. 27 mm, W. 20 mm. Type 3A.
iii) Found by a metal detectorist between 1990 and 2000. As last, the haft is slightly bent at the base. L. 29.8 mm, W. 20 mm. Type 3A.
Current Location: Kettering Museum.
Biblio.: i) Green 1975: 62, no. 9, fig. 2; Greenfield 1963: 243, no. 6, fig. 5.6; Taylor 1963: 267, no. 3b; ii) Dix 1986: 126-130, fig. 2; iii) Portable Antiquities Scheme No. RAH1500.

BR7. Caistor St. Edmonds, Norfolk (TG2303). From a Romano-Celtic shrine within Roman town. Other finds included *fibulae* and coins from Augustus to Gratian. *Complete bronze axe with a circular haft with two lines incised just before the base. The upper and lower faces of the blade rise in continous curves from the back of the nape to the greatly expanded bit. Size unknown. Type 3A.*
Current Location: Norwich City Museum.
Biblio.: Green 1975: 62, no. 11, fig. 2; Kirk 1949: 33, Roman b; Haverfield 1901: 292, fig. 9.

BR8. Canvey Island, Essex (TQ8283). Part of a collection of 278 mostly Roman objects discovered by chance by the same finder over a 30 year period.
i) A bronze model axe. The upper and lower faces are parallel curves. The blade is wedge-shaped in cross section. The body of the haft is round, but the part above the blade is rectangular. An X is incised over just to the left of the housing on the left cheek. L. 38.3 mm, W. 24.8 mm, Wt. 5.63 g. Type 3A.
ii) As last. A small X is inscribed on the lower part of the housing of the left cheek, but can only barely made out on the photo. L. 39.5 mm, Wt. 5.24 g, Type 3A.
Biblio.: i) Portable Antiquities Scheme No. ESS-B436F6, ii) Portable Antiquities Scheme No. ESS-B42710.

BR9. Carleton Rode, Norfolk (TM1091). Found by a metal detectorist in 2002. *"Roman copper-alloy miniature object in the form of an axe. It has a rounded triangular blade with slightly chamfered edges. It measures 10 mm x 20 mm and is 4 mm thick."*
Biblio.: Portable Antiquities Scheme No. NMS1409 No Image.

BR10. Castle Street, Leicester, Leicestershire. Found in 1966 with a Triton trumpet shell, some early Roman pottery and a pre-Flavian coin. *A complete bronze axe with a regular rectangular flag-shaped blade that includes a small nape. The round haft terminates in a knob and the does not protrude from the top of the blade. Somewhat corroded L. 38 mm W. 24 mm. Type 1A.*
Biblio.: Pirie 1986: 84-87, fig. 1.3.

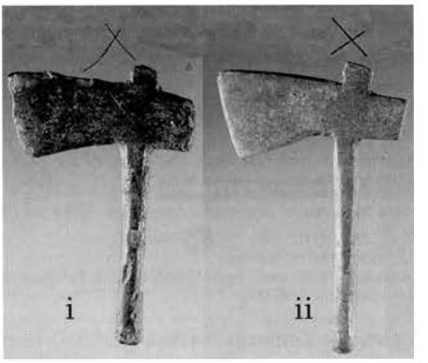
BR11. Castor, Cambridgeshire (TL125986). Stray find. *A bronze model axe.*
Current Location: Peterbrough City Museum, Inv. Nr. L 375.
Biblio.: Green 1975: 62, no. 10. No published illustrations.

BR12. Chinham, Wiltshire (TR0753). Stray find. From the A.D. Passmore collection.
Complete bronze axe with a plain round haft. The blade is wedge shaped in cross section. L. 29 mm W. 20 mm, Wt. 6.8 g. Type 4
Current Location: Ashmolean Museum, Inv. Nr. 1955.254.
Biblio: Green 1975: 62, nr. 7, fig. 2. (wrong); Green 1976: Pl. 28n (wrong description)

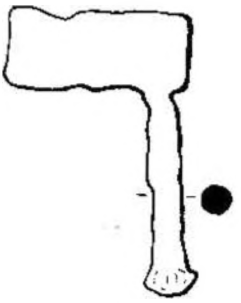
BR13. Colchester, Essex. A large Roman site, no information on the specific findspot. *A complete bronze axe with a square haft. The haft can be seen on either side of the blade, and protrudes from the top. The upper and lower faces consist of two parallel curves rising smoothly from the nape to the bit. Dark green patina. L. 30 mm, W. 23 mm, Th. 1 mm, Wt. 2.89 g. Type 3A.*
Current Location: British Museum, Inv. Nr. 1870.0402.252.
Unpublished.

BR14. Cossington, Leicestershire (SK6113). Found by a metal detectorist prior to 2005. *The handle is circular in section, and has three incised lines on one side near the base. The upper and lower faces consist of two parallel curves rising smoothly from the nape to the bit. A faint line can be seen running horizontally across the middle of the cheeks on both sides (not visible in the photo), brown patina. L. 27 mm W. 17 mm, Wt. 4.13 g. Type 3A.*
Biblio.: Portable Antiquities Scheme No LEIC-1529C1.

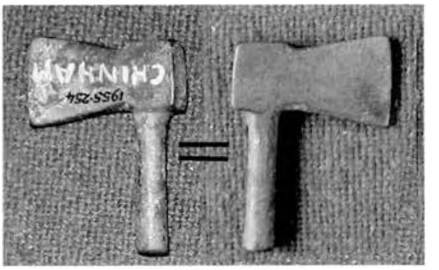
BR7. Caistor.
(From Haverfield 1901: fig. 9).



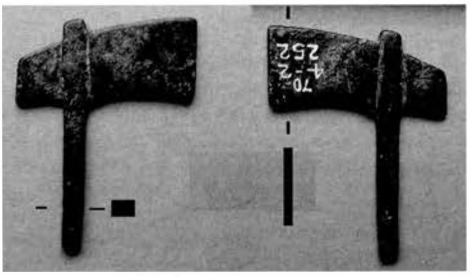
BR8. Canvey Island.



BR10. Castle Street.
(From Pirie 1986: fig. 1.3).

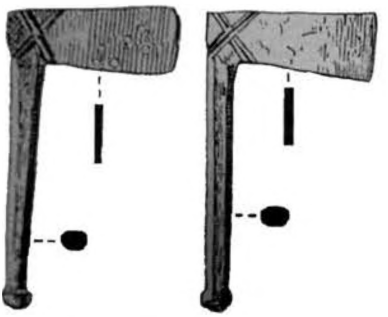


BR12. Chinham.
(Author, Ashmolean Museum).



BR13. Colchester.
(Author, Ashmolean Museum).

BR14. Cossington.



BR15. Cranborne Chase
(From Pitt-Rivers 1892: pl. 73.13-14).

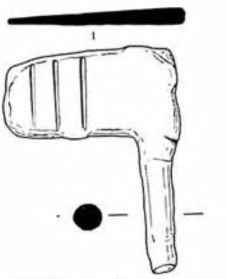
BR16. Creslow.

BR15. Cranborne Chase, Dorset (ST 91). Found in excavations at Bokerley Dike. The site itself is a late fourth century fort, presumably the model axes are intrusions. The size of the models given here goes on the assumption that they were reproduced at 1:1 by Pitt-Rivers, but his publication does not actually give the scale.
i) "Found in the body of a rampart, Section 2, Bokerly Dyke; 35 in Section 2, south-east half." bronze axe decorated with a cross on the housing. The blade is flat, and the haft circular with a slight knob at the base. L. 31 mm W. 18 mm. Type 1B.
ii) "Found on the old surface line, Section 2, Bokerly Dyke; 87 in Section 2, north-west half." A bronze axe decorated with a cross on the housing. The blade is flat, and the haft circular with a slight knob at the base. L. 31 mm W. 18 mm. Type 1B.
Biblio.: Green 1975: 62, nr. 13; Green 1976: 190, ST 91; Kirk 1949: 33 Roman d; Pitt-Rivers 1892: 97-98. Pl. 73.13 and 14. (*non vidi*). Thanks to Victoria Jefferson and Stacey Gowman for sending scans and information.

BR16. Creslow, Buckinghamshire (SP8022). Seen by a member of the Portable Antiquities Scheme at a metal detectorists rally in 2003. *A copper alloy axe with a circular handle and a wedged-shaped blade. A small diagonal line is incised on the blade over the haft. The outline of the blade is almost rectangular, but the upper and lower faces of the cheek bend slightly downwards. L. 25 mm. Type 1C.*
Biblio.: Portable Antiquities Scheme BUC-416727

BR17. East Ilsley.

BR17. East Ilsley, Berkshire (SU 4418). Both found by a metal detectorist around 1996. Found near one another, but not together.
i) A complete bronze axe. The haft is oval in section. The upper and lower faces consist of two parallel curves rising smoothly from the back of a large nape to the straight bit. Patchy mid-green patina with areas of red brown base metal showing through. L. 34.2 mm Wt. 3.11g. Type 3A.
ii) The axehead is wedge-shaped and the upper and lower faces consist of two parallel curves rising smoothly from the back of a large nape to the straight bit. The lower part of the housing extends slightly, perhaps to represent a lug. The left cheek is decorated with a curved line and a semi-circle of dots that surround a single dot. Green patina L. 37.4 mm, Th. 5.3-1.1 mm, Wt. 7.9 g. Type 3A.
Biblio.: i) Portable Antiquities Scheme BERK-E9E1F6; ii) Portable Antiquities SchemeBERK-E93EF6.



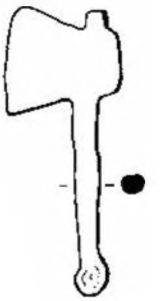
BR18. Elmstead

BR18. Elmstead, Essex. (TM0723) Found by a metal detectorist in 2002. *Copper alloy flag complete axe, with circular haft and wedge-shaped blade. There are three parrallel lines towards engraved on the left cheek. Badly corroded, possibly broken at the base of the haft. L. 29 mm. W. 22.5 mm. Wt. 4.6 g. Type 1A.*
Biblio.: Portable Antiquities Scheme No. SF9120

BR19. Gestingthorpe, Essex. No information on the findspot available, but presumably a chance find. *A complete miniature bronze axe with a circular haft. The blade right is inscribed with an X on the right housing, and five vertical parallel lines on the right cheek. L. 27 mm. Type 3A.*
Current Location: Department of the Environment (in 1984).
Biblio.: Green 1984a: 328, AX21, pl. 64, fig. 28.

BR19. Gestingthorpe (After Green 1984a: pl. 64.28)

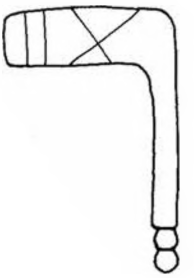
BR20. Goadby Marwood, Leicestershire. Found amongst other Roman material from the first to fourth centuries that was re-deposited by modern mining operations. *Miniature axe with symmetrical triangular blade. The round haft terminates in a knob and protrudes above the blade, but is badly off centre to the rest of the haft below. L. 38 mm, W. 15 mm. Type 4.*
Biblio: Pirie 1986: 84-87, fig. 1.1.



BR20. Goadby, Marwood. (From Pirie 1986: fig. 1.1).

BR21. Great Walsingham, Norfolk. Numerous surface finds of votive objects in this area point to the presence of an unexcavated sanctuary. *Complete flag shaped bronze axe with the haft terminating in two knobs. Inscribed blade left with an X and two lines.*
L. 35 mm, W. 23 mm, 3.65 g. Type 1A.
Current Location: Private Collection of David Fox.
Biblio.: Bagnall Smith 1999: 345 no. 26,. fig. 3.3.

BR22. Hacheston, Suffolk (TM3059). Stray find. *Bronze model axe.*
Current Location: Ipswich Museum (?)
Biblio.: Green 1975: 62, no. 14; Green 1976: 218 TM 35; Owles and Smedley1964: 116ff. (*non vidi*). No published illustrations.



BR21. Great Walsingham. (From Bagnall Smith 1999: fig. 3.3).

BR23. Harlow, Essex (TL 4712). A Romano-Celtic sanctuary. Other finds included a miniature pewter jug, some gilt bronze letters, and a large number of iron spits. The axes are not mentioned in the 1985 report. *'Several' miniature axes from a Romano-Celtic shrine.*
Biblio.: Green 1975: 62, nr. 16; Green 1976: 209-210 TL 41; Britannia 2.272-3, s.v. Old Harlow (Wilson, D.R. 1971) On the site see France and Gobel 1985. No published illustrations.

BR24. Higham Ferrers, Northamptonshire (SP9569). Found by a metal detectorist prior to 2005. *A complete bronze axe with a rectangular haft and wedge-shaped blade. The right cheek is decorated with a few incised lines. L. 26.9 mm, W. 24.6 mm, Wt. 5.2 g. Type 1C.*
Biblio.: Portable Antiquities Scheme no. NARC-DDAAD2.

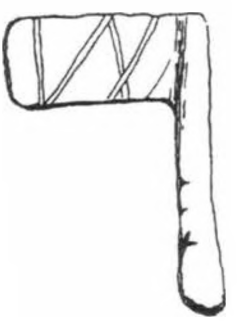
BR25. Hockwald, Norfolk (TL6888). From an unexcavated temple site. *A complete bronze axe. The round haft is slightly thicker at the base, and thicker than the flat blade at the housing. A series of zig-zag lines are engraved on the left cheek. L. 40 mm, W. 27 mm. Type 1A.*
Current Location: Norwich City Museum.
Biblio.: Green 1975: 63, nr. 17 fig. 2.Green 1976: 212 TL 68 Pl. 28.m

BR24. Highham Ferrers.

BR26. Howletts, Kent (TR1956). Found in 1956 in the filling of a grave in a cemetery with Roman and Anglo-Saxon period burials. *A miniature bronze axe, described as having a socket that is 3.5 inches long. This is surely a mistake for the length of the haft. If not, then it probably belongs to the category of miniature socketed axes (4.3) L. 89 mm.*[2]*, L. of blade 51 mm, W. 20 mm.*
Biblio.: Green 1975: 63, nr. 18. Green 1976: 231 TR15; Anonymous 1924: 276-7. No published illustrations.

BR27. Kenchester, Hereford and Worcester (SO4343). Stray find from within Roman town, possibly from a Romano-Celtic temple. Other finds include several bronzes (a bull's head, a horse's head, a lion, a stag, a mouse, and a cock), a large altar, two busts of Minerva and a pot. *A miniature bronze axe.*
Current Location: Hereford Museum.
Biblio.: Green 1975: 63, nr. 19. Green 1976: 169, SO Kenchester 44.7. No published illustrations.

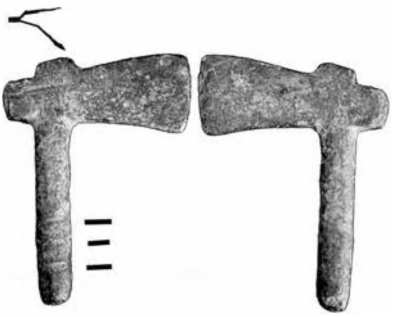
BR28. Kenninghall, Norfolk (TM 0360 8725). Found by a metal detectorist in 2005. *A complete bronze axe with a round haft which protrudes*



BR25. Hockwold. (From Green 1975: fig. 2).

2 The note actually describes a socket of 3.5 inches, but must surely mean the haft, otherwise the hole would be larger than the axe-head.

BR28. Kenninghall.

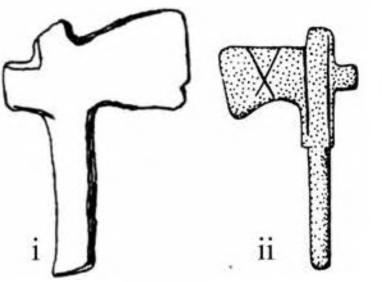


R29. Kirby Muxloe.

above the blade. The small rectangular nape is set slightly below the curved blade. A small + is engraved on the left cheek. L. 31 mm W. 21 mm. Type 3B.
Biblio.: Portable Antiquities Scheme No. NMS-CB4D75

BR29. Kirby Muxloe, Leicestershire (SK5104). Found by a metal detectorist in 2005. *A complete bronze axe. The main part of the haft is octagonal, but it is square where it emerges above the blade. The upper and lower faces consist of two parallel curves rising smoothly from the back of a large nape to the straight bit. The database mentions a horizontal line running the length of one side, and pincers or pliers on the other. The upper part of the latter decoration is clear enough on the right nape and housing, though the bottom part of it is very difficult to discern. I cannot distinguish any horizontal line on the left cheek. There seem to be three incised lines on the base of the haft, though the database entry records only two. Brown patina. L. 33 mm, W. 24 mm , Wt. 5.64 g. Type 3A.*
Biblio.: Portable Antiquities Scheme No. LEIC-834EE2

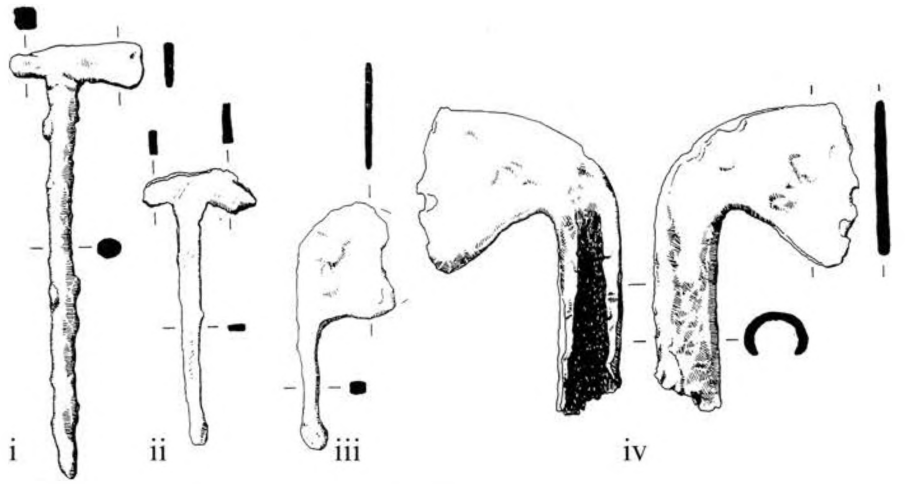
BR30. Kirmington, Lincolnshire (TA1011). Stray finds. Other finds of miniature objects from this site include three shields and a gladiator's helmet. Arial photography has suggested a Roman fort and settlement. Various other ritual objects, including the miniatures, make it highly probable that there was a temple site here as well.
i) Miniature bronze axe with plain tubular haft and splayed blade. L. 34 mm, W. 24 mm. Type 3B.
ii) A complete bronze axe. The haft circular haft becomes rectangular and thickens just before the blade, and remains so until the top of the haft. Perhaps an extended metal housing is meant. An X is inscribed on the left cheek L. 32 mm, W. 11 mm. Type 3B.
Current Location: North Lincolnshire Museum, Scunthorpe.
Biblio.: i) Green 1975: 63, no. 20, fig. 2; Green 1976: 202, TA 11; ii) Leahy 1980: 327, fig. 5.



BR30. Kirmington. (i:From Green 1975: fig. 2.20; ii: Dr. Kevin Leahy, North Lincolnshire Museum).

BR31. Lakenheath, Suffolk. A casual find made in 1981 along with other Roman objects and a miniature bronze socketed axe. *A miniature shaft hole axe.*
Current Location: Bury St.-Edmonds Museum.
Biblio.: Robinson 1995: 62. No published illustrations.

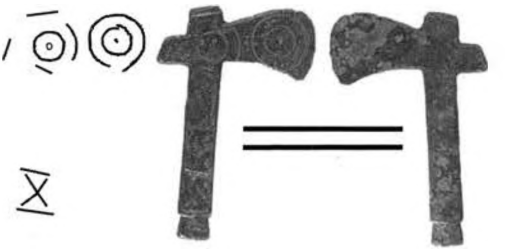
BR32. Lamyatt Beacon, Somerset. A Romano-Celtic temple built in the late third century and occupied until the early fifth. The numerous small finds included coins, possible miniature spears (see **3.9**), and bronze figurines representing Mars, Mercury, Hercules and Minerva. All of the axes appear to be badly corroded, and their identification as votive models is highly questionable.
i) A complete iron axe with a long round haft. The nape of the axe is square in cross section, presumably thinning towards the bit. Very corroded. L. 57 mm, W. 17 mm.
ii) A complete iron model axe with a long haft. The axe's head is badly damaged. The entire model, both haft and blade are flat. L. 36 mm, W. 14 mm.
iii) Complete iron axe. The round haft terminates with a knob at the base, and curves outwards to form blade at the top. The flat blade is broken, thus the form of the model is unclear. Possibly an Allmendingen type (Type 5) L 33 mm, W. 13 mm.



BR32. Lamyatt Beacon (After Leech 1986: figs. 28 and 29).

iv) Similar to an Allmendingen type (Type 5) with a curved flat triangular blade. The tip of the blade appears to be broken, Instead of a representation of a haft, there is an open socket, presumably for attachment to a wooden haft. L. 40 mm, W. 26 mm.
Current Location: i-ii: Bristol City Museum (?); iii and iv: private collection (?).
Biblio.: Leech 1986: 303, cat. nos. 39-42.

BR33. Lenton Keisby and Osgodby, Lincolnshire (TF0232). Found by a metal detectorist. *A complete bronze axe. The round haft terminates with a narrowed section at the base, and protrudes through the blade at the top. At the base, it is decorated with two incised lines with an X between them. The small rectangular nape is out of alignment to the rest of the blade, sitting too far down the haft. There is another line just before the top of the haft, and on the back of the housing, in front of the nape. The right cheek and housing are elaborately decorated with two concentric circles containing dots. The outer circles both exceed the boundaries of the model itself. The left side is plain. L. 33 mm. Type 3B.*
Biblio.: Portable Antiquities Scheme No. LIN-16EBE7.

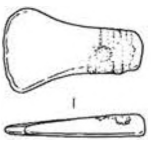


BR33. Lenton Keisby and Osgodby.

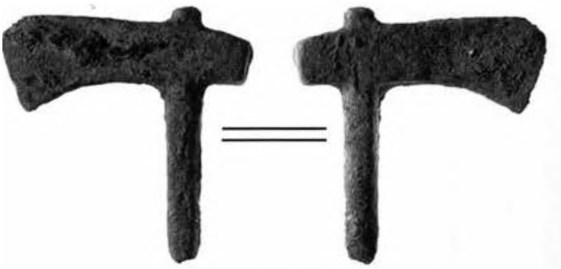
BR34. Linstead Magna, Suffolk (TM3178). Found by a metal detectorist find in 2003. *A complete bronze axe, with circular haft. The profile blade was probably rectangular originally. It is incised with two parrallel lines on the left cheek, and with an X on the right cheek. Badly damaged and broken at the haft. L. 18 mm, W. 17 mm. Type 1A.*
Biblio.: Portable Antiquities Scheme No. SF-FFAA51.

BR34. Linstead Magna.

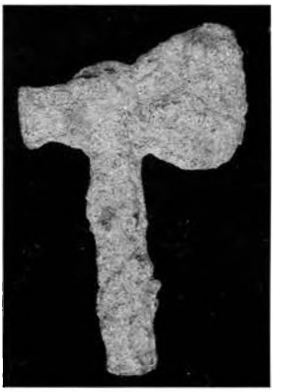
BR35. Methwold, Norfolk. Found by a metal detectorist in 2003 *A flat bronze axehead. The blade is roughly a symmetrical triangle, with curved upper and lower faces. Iron corrosion fills the haft hole, but has burst through the bronze on one side of the axe, suggesting that the lost haft was iron. W. 18 mm, 1.45 g. Type 4.*
Biblio.: Portable Antiquities Scheme No. SF-723427.



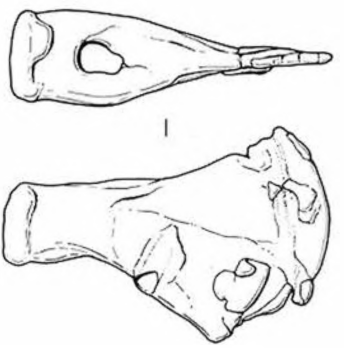
BR35. Methwold.



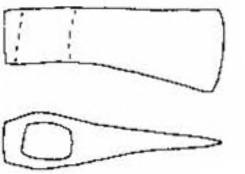
BR36. Mildenhall.



BR37. Minver Highlands.



BR38. Nettlestead.



BR41. Poundbury. (From Farrar 1952: fig. 1).

BR36. Mildenhall, Suffolk (TL6978). Found by a metal detectorist prior to 2005. *A complete bronze axe with an oval haft that protrudes above the blade. Both the upper and lower face consist of parallel curves which expand the almost rectangular nape into a wide straight bit. There is a raised curved section on the upper half of the left cheek. This is most likely from a flaw in the casting process.* L. *35 mm, W. 13 mm, Wt. 8.85 g. Type 3A.*
Biblio.: Portable Antiquities Scheme No. SF-DF8151.

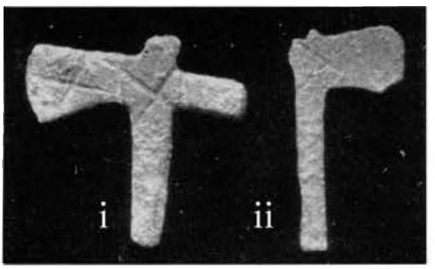
BR37. Minver Highlands, Cornwall (SW9476). Found in 2003 by a metal detectorist. *Miniature iron axe with large rectangular nape that is curved on the lower face. The upper and lower faces of the cheek curve sharply outwards to form a large cutting edge. Broken at the base of the haft. L. 43 mm, W. 30.8 mm.*
Biblio.: Portable Antiquities Scheme No. CORN-79BD53.

BR38. Nettlestead, Suffolk. (TM0949) Found by a metal detectorist in 2003. *A miniature lead axehead. The nape is square in cross-section, with an oval haft hole 5 mm in diameter. Possibly not Roman. W. 42 mm. Type 4.*
Biblio.: Portable Antiquities Scheme No. SF-FC9278.

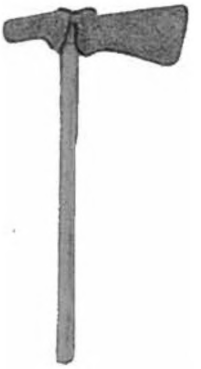
BR39. Nettleton Shrub, Wiltshire (SP8276). From a rectangular temple built into a hillside, the first of three temples on the Foss Way. Coin finds mostly A.D. 200 to 400. *A miniature bronze axe.*
Current Location: Bristol City Museum.
Biblio.: Green 1975: 63, no. 22; Green 1976: 190, ST 87.5. No published illustrations.

BR40. Piercebridge, Durham (NZ2115). A chance find made between 1986 and 2003. *"A copper alloy miniature hafted votive axe. The blade is wedge-shaped with a circular perforation for the handle. Both sides of the blade head are decorated with crescental cells, although the cells on the upper surface are more pronounced. One cell on the upper surface appears to be filled partially with blue enamel." L. 21 mm W. 9 mm Th. 4 mm. The description of enamel is unusual. Possibly a plate fibula.*
Biblio.: Portable Antiquities Scheme No NCL-143544. No image.

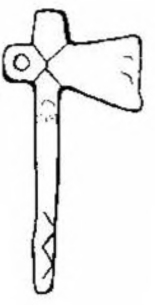
BR41. Poundbury, Dorchester, Dorset (SY6790). Found in an area known for its Roman cemetery in 1943 in a WW II army trench. A small bronze hanging bowl with two ringed handles, possibly a miniature cauldron, was found near this piece (see **6.3**). *A bronze axehead with an almost rectangular hole for the haft. The upper face of the haft runs in a straight line from the back of the nape to the bit, while the lower haft curves sharply downwards just after the housing. L. 28 mm. Type 2A.*
Current Location: Dorchester County Museum 1947.16.1-2 ('on loan' in 1964.).
Biblio: Green 1976: 201, Poundbury 69; Farrar 1952: 98-99, fig. 1.



BR42. Richborough.
(From Bush-Fox 1949: Pl. 52 and 53).



BR43. Rockbourne
(from Morley Hewitt 1969: pl. 15a).



BR44. Sapcote Villa
(From Pirie 1986: fig. 1.2).

BR42. Richborough, Kent (*Rutupiae*, TR3260). A major Roman fort with corresponding settlement, founded with the invasion in A.D. 43 and later converted into a Saxon shore fort. Two axe-shaped bone hair pins were also found here.

i) Found in area 15, below stone fort road. All of the material below the road dates before A.D. 80. *A complete bronze axe. The upper and lower face curve outwards to form a broad rounded bit. The long rectangular nape is set well below the upper part of the blade. Inscribed on the left housing and cheek: X\|X\|. L. 29 mm, W. 28 mm. Type 3B.*

ii) Found in the topsoil east of section 53. *Miniature bronze flag-shaped axe, the blade splays slightly. An X is incised on the right housing possibly indicating the binding lines. L. 30 mm, W. 15 mm. Type 1C.*

Biblio.: Green 1978: Richborough 29 and 30; Green 1981: 256-257. nos. 15b and 15d, fig. 2; Kirk 1949: 34, Roman l; Bush-Fox 1949: 53-55 and 145-146, nos. 189-190 and 208; pls. 52-53.

BR43. Rockbourne, Hamptonshire (SU1217). Found in a Roman villa, and interpreted as an amulet of the Mithras cult. *A silver miniature axe-head. The haft in the illustration is presumably re-constructed, but the publication is not clear about this. The large rectangular nape points downwards. The upper face of the blade slopes sharply up and lower face curves down to form a large straight bit. There is a large slit in the housing. Very similar to the example found at Wherwell (***BR58***). The overall effect is not unlike a Roman dolabra. L. 23 mm, W. 8 mm.*

Biblio.: Green 1975: 63, no. 24; Green 1976: 191, SU 10; Morley Hewitt 1969: pl. 15A.

BR44. Sapcote Villa, Leicestershire. Found prior to 1811 near some "ancient buildings", one of which included a tessellated pavement. The site also includes bath houses. Now lost, known only from this illustration. *A complete bronze axe with a round haft which protrudes from the top of the blade. The nape is rectangular, and appears to have been pierced. The upper and lower faces diverge in straight lines to form a symmetrical triangular blade. The right housing is engraved with an X, and, zig-zag lines appear on the bottom of haft. L. 38 mm, W. 20 mm. Type 4.*

Biblio: Pirie 1986: 84-87, fig. 1.2. Nichols 1811: v. 4(ii).

BR45. Sarre.
Scale unknown. (From Payne 1892: 31)

BR45. Sarre, Kent, (TR2565). Supposedly from one of 272 Anglo-Saxon graves excavated here by John Brent between 1862 and 1864, but if so it is certainly a Roman relic or intrusion. *A complete bronze axe with a circular haft that emerges above the blade. The blade is wedge-shaped in cross section. The upper and lower faces consist of two parallel curves rising smoothly from the back of a large nape to the straight bit. The left cheek is decorated with two parallel vertical lines. Scale unknown. Type 3A.*

Current Location: British Museum (?). Formerly in the Kent Archaeological Society Collection at Maidstone.
Biblio.: Green 1975: 63, nr. 25. Kirk 1949: 34, Roman m; Payne 1892: 31, no. 485.

BR46. Shimpling.
Roughly 1:1.

BR46. Shimpling, Suffolk (TL8650). Found by a metal detectorist in 2002. *A complete bronze axe. Both blade and haft are flat. The upper and lower faces consist of two parallel curves rising smoothly from the back of a large nape to the straight bit. Badly corroded and bent sharply on the haft just below the blade. L. 35 mm (unbent), W 17 mm, Th. 1.5 mm. Type 3A.* Biblio.: Portable Antiquities Scheme No. SF9971.

BR47. Silchester, Hampshire (*Calleva*, SU6462). At least seven Romano-Celtic temples have been identified on this major Roman town. Boon recorded that at least 12 miniature axes are known to have been found in Silchester, of which four are in the Reading Museum today, seven were in the Stair Collection in 1821, and one was at Stratefield Saye. Only circumstances of only one of the models (v) are known. Boon also mentions the find of a polished neolithic axe was in insula 32, which may also be votive. The four examples in the Reading museum (i-iv) are on display and could not be handled. I have altered the published illustrations to conform to the notes and poor photographs that I was able to make in the museum. The most notable new observation is the presence of an engraved X on the left cheek of no. ii.

i) A complete miniature bronze axe with a flat suspension loop at the bottom of the round haft. The remains of a corroded iron rivet fill the inside the loop. The blade is roughly rectangular with a very small nape. A single curved line runs vertically in front of the housing L. 49 mm, W. 24 mm. Type 1B.

ii) Complete miniature bronze axe with rectangular wedge-shaped blade and a round shaft, that terminates in a small round knob. The lower part of the left cheek is incised with a small cross. L. 30, W. 20 mm. Type 1A.

iii) A complete miniature bronze axe with a straight haft and a roughly rectangular blade, with a lower face that curves sharply downwards. A slightly jagged point on top of the blade may represent the re-emergence of the haft. The model is composed of a thin sheet of bronze and is completely flat. Possibly cut-out rather than cast. L. 37 mm, W. 27 mm.

iv) Miniature bronze axe with roughly round haft terminating in a round knob. The blade is flat in cross section and roughly rectangular in form, expanding slightly towards the bit. It is inscribed on the left cheek: CCX. L. 40 mm, W. 26 mm. Type 1C.

v) From the excavations of Mr. Bartlett in 1821. It was found in an excavated area of 3 feet square about 3 feet below the surface, near the east Roman gate. Other finds included ashes, bones, deer antler, a coin of Maximianus and a silver British coin. *A complete bronze axe with a cylindrical haft that terminates in a short round knob. The blade is roughly rectangular and completely flat. Blade left has had a large cross scratched just above the haft. L. 38, W. 23 mm Type 1C*

vi) In the possession of Mr. Barton in 1851. *A complete miniature bronze axe with a tubular haft terminating in a fine round finial at the base. The rectangular blade is wedge-shaped in cross section.. L. 38 mm, W. 28 mm. Type 1A*

Current Location: i-iv) Museum of Reading, Silchester Gallery; v-vi) unknown.

Biblio.: General: Green 1976: 195, SU 66, no. 10; Boon 1974: 332, note 18 (neolithic); Lewis 1966: 47. i) Green 1975: 63, no. 26a, fig. 3; Kirk 1949: 34, Roman n. no. 3. ii) Green 1975: 63, no. 26b, fig. 3; Kirk 1949: 34, Roman n, no. 2. iii) Green 1975: 63, no. 26c, fig. 3; Kirk 1949: 34, Roman n (no description). iv) Fauduet 1983: 99-100, fig. 3B; Green 1975: 63, no. 26d fig. 3 (blade right); Kirk 1949: 34 Roman n, no. 1; Boon 1974: 227, fig. 34.17. *v)* Neville 1854: *57. vi)* MacLauchlan 1851: 245.

BR48. South Ferriby, Humberside (SE9820). *A miniature axe with a round haft, which is incomplete. The small rectangular nape sits just below the blade, the upper and lower faces of which curve outwards to form a large straight bit. L. 20 mm. Type 3B.*

Current Location: Hull Museum.

Biblio.: Green 1978: South Ferriby no. 1. pl. 122; Green 1981: 15b fig. 2.

BR49. Springhead, Kent (TQ 618725). Found in the floor in the very centre of temple 1, a Romano-Celtic type building. The entire complex included four such temples and a spring, and was enclosed by a *temenos* wall. The site dates from the first century A.D. onwards, but the context of the axe-head is second or third. Other small lead objects from this site may also be miniature tools, but are quite unlike the other miniature axes or tools discussed in this study. *A lead axehead with a central hole for the haft. L. 25 mm.*

Biblio: Green 1975: 63, no. 27; Penn 1959: 53, fig. 12.4. The finds from this site are currently being worked on by Richard Jarrett at the University of Durham, to whom I am grateful for sending me part of his manuscript.

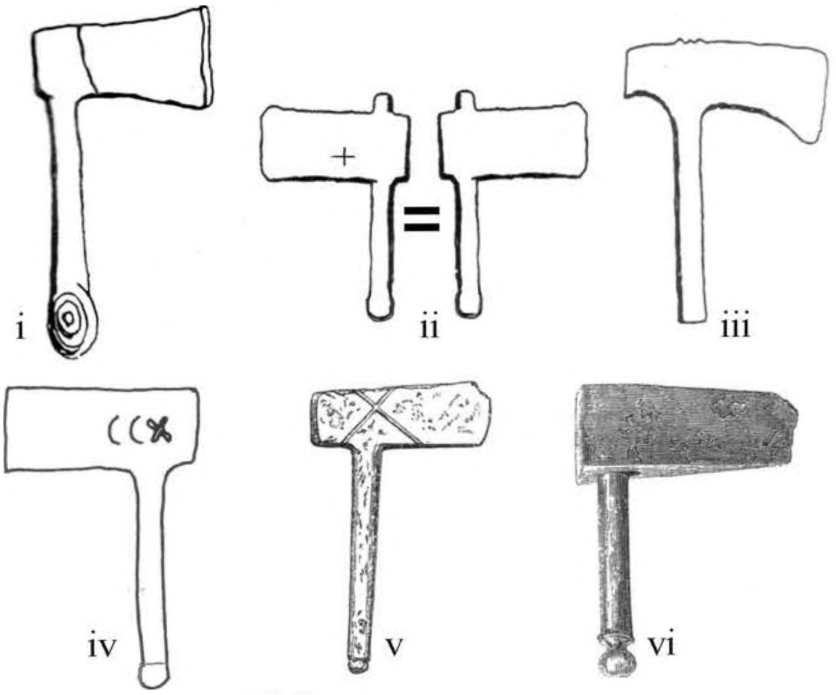
BR50. Stoke Ash, Suffolk (TM1170). Found by a metal detectorist in 2002. *Lead axe-head with a circular eye, wedge shaped in cross section. Both sides decorated with incised < and | patterns. W. 21 mm, L. 6.5 mm, Th. 7.3 mm, Wt. 4.92 g. Type 1A.*

Biblio.: Portable Antiquities Scheme SF-105BC3.

BR51. Stow cum Quy, Cambridgeshire. (TL51876153), Metal detector find. *Complete bronze axe with a round haft, which protrudes above the blade. The upper and lower faces consist of two parallel curves rising smoothly from the back of a large nape to the straight bit. There are two vertical lines inscribed on the left cheek. L. 26.7 mm, W. 25 mm, Wt. 5.63 g. Type 3A.*

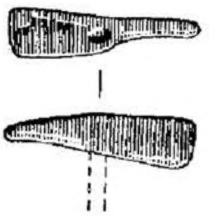
Biblio.: Portable Antiquities Scheme No. SF-E5A4C7

BR52. Tiddington, near Stratford-on-Avon, Warwickshire (SP21805559). Found during excavations by F.C. Wellstood during the construction of a golf-course. Not published in the site report. Found within a Roman settlement dating from the first to fourth centuries A.D., which included a number of late Roman inhumations. *A complete bronze model with haft and blade made separately and later joined. The haft protrudes very slightly*

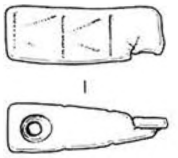


BR47. Silchester.
(adapted from Green 1975: fig. 3; Fauduet 1983: fig. 3b; Neville 1854: 57; MacLauchlan 1851: 245).

BR48. South Ferriby.
(From Green 1981: fig. 2)

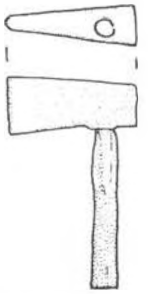


BR49. Springhead.
(From Penn 1959).



BR50. Stoke Ash.

BR51. Stow cum Quy.



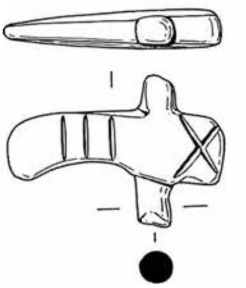
BR52. Tiddington.
(After Green 1985: fig. 1.)

from the top of the blade. Filing marks along the haft may be intended to make it resemble natural wood. The upper face of the blade rises smoothly in a straight line from the back of the nape. The bit is straight. The lower face slopes sharply downwards after the housing. L. 28 mm, W. 17 mm. Type 2A.
Current Location: Shakespeare Birthplace Trust, New Place Museum, Stratford-on-Avon.
Biblio.: Green 1985.

BR53. Titchmarsh, Northamptonshire (TL0079). Metal detectorist find in 2003. *A complete bronze axe with a round haft that protrudes above the blade. The lower face curves smoothly from the back of the nape to the enlarged straight bit, while the upper face is set slightly above the nape.. L. 24.5 mm, W. 29 mm, Wt. 5.2 g. Type 3B.*
Biblio.: Portable Antiquities Scheme No. NARC-C7EBA3.

BR53. Titchmarsh.

BR54. Towcester, Northamptonshire (SP6848). Found by a metal detectorist in 1999.
i) "A Roman copper-alloy miniature axe with a wedge-shaped head and a thin slightly tapering handle. L. 43.37 mm."
ii-iii) "Two axes in silver, both about 1.5 inches long."
Current Location: i) unknown. ii-iii) Private Collection.
Biblio.: Portable Antiquities Scheme No. NARC125;. ii-iii: Green 1975: 63, no. 28. (Citing information provided by D.C. Mynard, Development Corporation); Green 1976: 178 SP 64. No published illustrations.


BR56. Wenhaston with Mells Hamlet.

BR55. Weaverthorpe, North Yorkshire (SE9670). Metal detectorist find in 1998. *"Copper alloy miniature axe with a suspension loop above the butt. Undecorated. L. 22.1 mm"*
Biblio.: Portable Antiquities Scheme YORYM368. No Image.

BR56. Wenhaston with Mells Hamlet, Suffolk (TM4274). Found by a metal detectorist in 2001. *A complete miniature axe with a broken haft. The haft is round below the blade, and emerges rectangular above it. The blade is wedge -shaped in cross section. The rectangular nape is thicker than the drooping blade. The left cheek is engraved with three parrallel lines and the left nape with an X. W. 28 mm.*
Biblio.: Portable Antiquities Scheme No SF10999.

BR57. Weymouth, Dorset (SY 6778). Stray find. *A bronze model axe. Considered to have much more elaborate decoration than all the other models known to Kirk in 1949, but no photo or description available.*
Current Location: In the private Collection of Capt. A. Jackson Brown in 1949.
Biblio.: Kirk 1949: 34, Roman k; Green 1976: 200, SY 67. No published illustration.

BR58. Wherwell, Hampshire (SU4042). Found in 1999 by a metal detectorist prior to 2002. *A bronze axehead, somewhat similar to the piece from Springhead. The housing is round, and the upper and lower faces diverge in straight lines to form an enlarged straight bit. The rectangular nape slopes slightly downwards. W. 20.5 mm, Wt: 1.73 g.*
Biblio.: Portable Antiquities Scheme HAMP2190.

BR58. Wherwell.

BR59. Winthorpe, Nottinghamshire (SK8358). Found by a metal detectorist prior to 2006. *Fragmentary complete bronze axe with a curved blade. Both the upper and lower faces curve continuously from the back of the nape to form an enlarged straight bit. Most of the haft is lost. The left cheek is incised with a circle containing a cross. W. 23.1 mm L. 13.2mm in width and 2.3mm in thickness 1.72 g Type 3B.*
Biblio.: Portable Antiquities Scheme SWYOR-DC5411.

BR59. Winthorpe.

BR60. Woodchester, Gloucestershire. Found in the late 18th century, the site is an enormous Roman villa which was occupied from the late first century A.D. to the late fourth. The site is most famous for its mosaic floor depicting Orpheus. *A tinned axe with traces of incised cross markings at the junction of the blade and the haft on one side. Described by Lyson as "a little votive hatchet of brass." L. 34 mm, W. 29 mm.*
Current Location: British Museum (*non vidi*).
Biblio.: Kirk 1949: 34, Roman p; Neville 1854: 67; Lyson 1797: pl. 35. (*non vidi*. My thanks to Stacey Gowan for providing a description). On the villa at Woodchester see Clarke 1982.

BR61. Woodeaton Oxfordshire (SP533123). The site is a Romano-Celtic temple, excavated in 1952, but the axes were all found earlier by field walkers. The first temple was built around A.D. 50, and was re-constructed with an ambulatory around 150. There is no evidence for an Iron Age temple underneath the Roman structures, but there is an Iron Age settlement nearby. Finds from the site included numerous metal votive objects, including miniature spears (**3.10**), mostly found in the area outside the ambulatory of the *cella.*

i) A complete bronze axe, with a plain rectangular haft that protrudes very slightly out of the top of the roughly rectangular blade. The blade is thin, but nonetheless wedge-shaped in cross section. Rough scratches form an X on the left housing, possibly representing binding lines. L. 40 mm (but the upper end of the haft is broken). Wt. 6.74g. Type 1C.

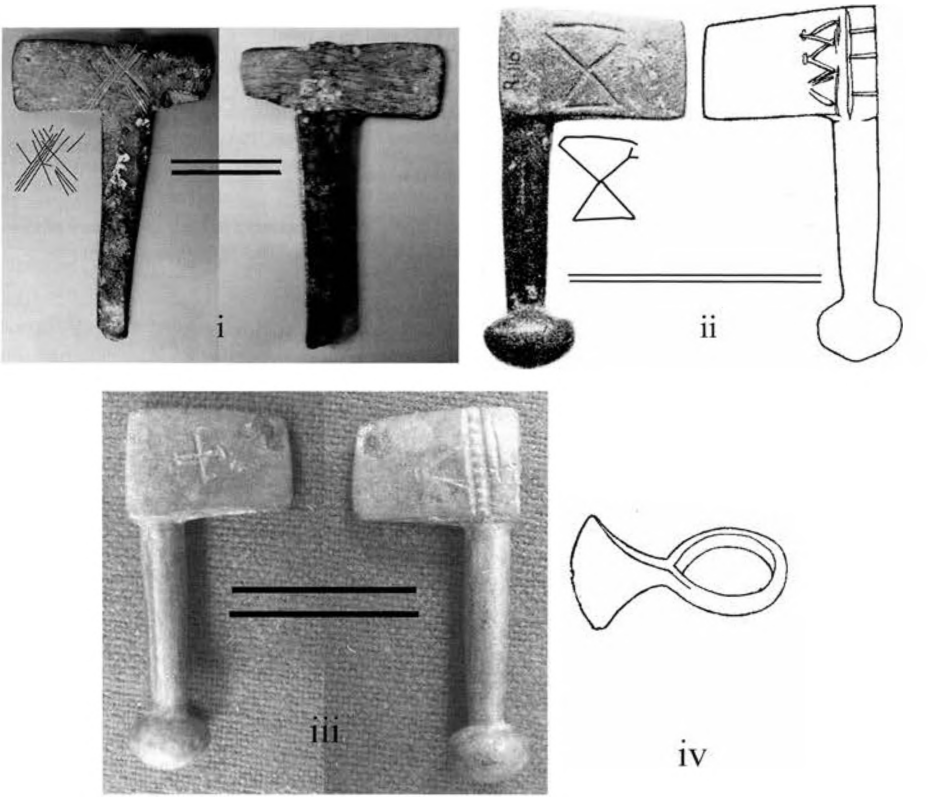
ii) A complete bronze axe with a rectangular blade and a bulbous knob at the base of the circular haft. The left cheek and housing are engraved with three upside-down triangles, joined by a single bottom line, above a pattern of three horizontal lines. The right cheek is engraved with a roughly hour-glass-shaped figure. L. 45 mm, Wt. 22.32 g Type 1A.

iii) A complete bronze axe with a bulbous knob at the bottom of a plain tubular shaft. The rectangular blade is wedge-shaped in cross section. The left cheek and housing are engraved with a < and a series of pellets and a line. Behind this line, on the housing, is a sword-shaped figure. The right cheek is inscribed with a crude swastika-like form. L. 47 mm, Th. 7-2 mm, Wt. 21.10g. Type 1A.

iv) Possibly a bronze axe head consisting of a large ring on which a symmetrical triangular blade is mounted. Dm. of ring: 14mm, L. of blade, 17mm. Type 4.

Current Location:. i) Ashmolean Museum, Inv. Nr. 1937.815 (Bowen); ii) Ashmolean Museum; Inv. Nr. R. 116 (ex Sir Arthur Evans Collection); iii) Ashmolean, Inv. Nr. 1934.2; iv) Ashmolean Museum, Inv. Nr. 1935.423

Biblio.: i) Kirk 1949: 40, no. 2, fig. 8.3; Green 1975: 63, no. 30; Green 1976: 178, SP51, no. 18. pl. 28k; ii) Kirk 1949: 40, no. 3, pl. 4C and fig. 8.4; Green 1975: 63, no. 30; Green 1976: 178 SP51 no. 16, pl. 28l; Green 1984a: 327, AX20, pl. 64.27; iii) Kirk 1949: 40, no. 4, fig. 8.5 and pl. 4D; Green 1975: 63, no. 30; Green 1976: 178, SP51, no. 17, pl. 28l; iv) Kirk 1949: 40, no. 1, fig. 8.6; Green 1975: 63, no. 30; Green 1976: 178 SP51, nr. 15.



BR61. Woodeaton.
(i and iii: author, Ashmolean Museum; i
i and iv: after Kirk 1949: pl. 4.C and fig. 8.4)

BR62. Wroxeter, Salopshire (SJ5608). Stray find from within the town. *A Miniature votive axe. No further details available.*
Current Location: Shrewsbury Museum.
Biblio.: Green 1975: 63, no. 31; Green 1976: 163 SJ50.22. No published illustrations.

BR63. Wycomb, Salopshire (SP027200). From two Romano-celtic shrines dated from the first to fifth centuries A.D. Other finds included worked flints, 500 coins and a bronze statuette of a god, possibly Mars. *A miniature votive axe. No further details available.*
Biblio.: Green 1975: 63, no. 32; Green 1976: 176 SP 02.01. No published illusrtations.

BR64. Unknown Provenience, Kent. This axe model is described as being from Alchester by Green, but the findspot of this and other axes recorded in the Ashmolean suggest that the labelling of Green's illustrations is confused. *Bronze model axe, with plain tubular haft, and splayed blade. The haft is represented protruding above the axe-blade, but is badly off centre. H. 30 mm, W. 20 mm. Type 4?*
Current Location: Ashmolean Museum (*non vidi*).
Biblio.: Green 1975: fig. 2.7 (erroneously listed as Alchester); Green 1976: fig. 28n.

BR64. Unknown Provenience, Kent. (After Green 1975: fig. 2.7).

France (FR)

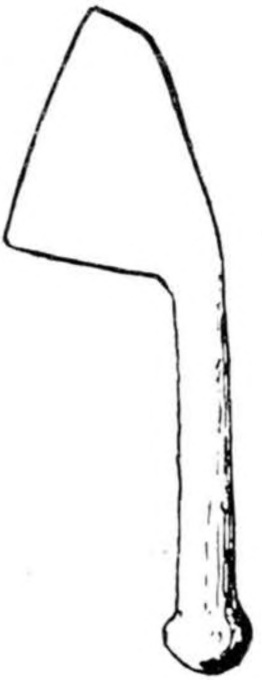
FR1. Les Allieux, Pays de Argonne, Meuse. A number of Roman pottery workshops were identified here in the early 20th century. This object was found in one of them and identified by Chenet as a pottery knife. *An iron All-mendingen type axe, with a round haft that terminates in a hemispherical knob. Broken at the bit? L. 175 mm.*
Biblio.: Forrer 1948: 76, pl. 12.5; Chenet 1941: 35-37, pl. 2.9.

FR2. Champ de Plénise, about 1 km east of Lomont, Haute-Saône. No information on the site is available. Recorded as being from the excavations of Nourbey in 1870. *A complete iron axe, with the haft and blade being made seperately. The round haft seems too thin when compared to the blade. It emerges from the top of the blade, and is broken just below it. The blade itself is thicker at the nape and housing than along the blade. The upper and lower profiles are convex and concave respectively, and diverge evenly to form an enlarged bit. The section of blade directly after the housing is much narrower than the end of blade. The bit is slightly rounded. W. 44 mm, H. 17mm, Th. 9 mm (nape) to 3 mm (bit), Wt. 12.77g.*
Current Location: Musée des Antiquités Nationales, St. Germain-en-Laye. Inv. Nr. 15223; De Nourbey 1870.

FR3. Châteauneuf, Savoie. A Romano-Celtic style temple with two *cellae* and a bath and theatre located nearby. The axehead was found sealed small trench in the middle of one of the *cellae* along with two bronze coins of Vienne and Lyon. The latter dates, to 15-14 B.C., but as both were badly worn, the excavators dated the deposit to late in the reign of Augustus, or early in the reign of Tiberius. The group was considered to be a foundation deposit by the excavators who recalled the *sub ascia dedicavit* inscriptions of tombstones. *An iron axe-head. The housing around the eye and rectangular nape is fairly thick. The eye is roughy oval. The faces of the blade both slope abruptly downwards. L. 75 mm, W. 15-23 mm.*
Biblio: Mermet 1993: fig. 103, 7.3.

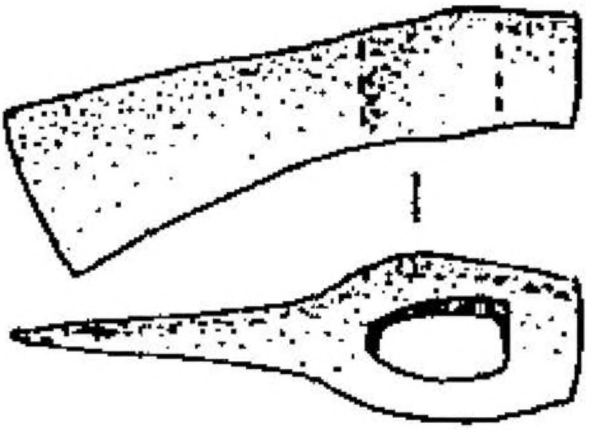
FR4. Evreux, Eure. A very large Roman site is located under the modern city. The exact findspot of this piece is unknown. Probably from Evreux or its environs. *A miniature axe with a plain round haft and irregularly shaped blade. The upper face and bit are curved, and the lower face is jagged. The nape is rectangular. Three double rings of concentric circles are engraved on the right cheek. L. 23 mm, W. 16 mm.*
Current location: Musée d'Evreux, Inv. Nr. 11489.
Bilbio: Fauduet 1992b: 148, no. 1077; CAG 27.288.124-146 (Cliquet and Gerber).

FR5. Fesques, Seine Maritime. Activity on this site begins in the third century B.C. and continues until at least the end of the first century A.D. Coin finds from later Roman periods are scarce. Initially a large hill-top sanctuary surrounded by a large outer trench and an inner wall, the enclosed area incorporated two square structures and an altar. Outside of the enclosed area, a series of trenches containing human bones suggest that exhumation was practiced here in La Tène D1 (125-100 B.C.). The practice of depositing coins and jewellery seems to replace that of depositing weapons on the site in the first century B.C. The sanctuary has been compared to other large warrior sanctuaries such as Gournay-sur-Aronde and Ribemont-sur-Ancre. The miniature axe is a surface find. *A complete miniature axe in silver. The haft is round and the blade wedge-shaped in cross section. The haft terminates in a cylindrical knob at the base. The emergence of the blade is marked on the top of the axe head.*

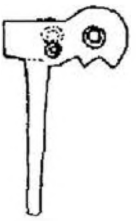


FR1. Les Ailleux-Clairière. Scale 1:2.
(After Forrer 1948: Pl. 12.5)

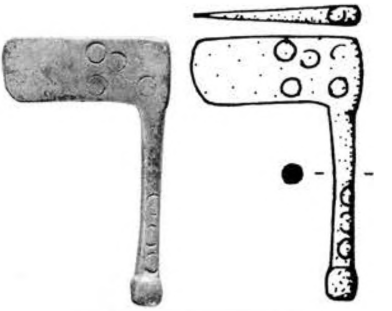
FR2. Champ de Plénise.
(Author, Musée des Antiqités Nationales).



FR3. Chateauneuf. (From Mermet 1993: 103, fig. 7.3.).



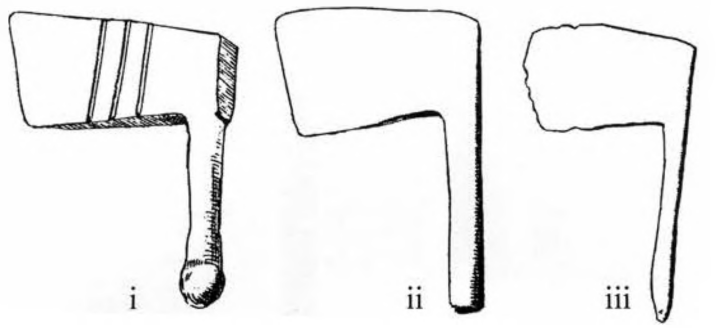
FR4. Evreux, Eure
(After Faudeut 1992: 148).



FR5. Fesques photo and drawing.
(After Mantel 1997: 153 and 267 fig. 4).

but it does not protrude significantly from the blade. The blade itself is a regular rectangle with no nape. The left cheek and the left side of the haft are decorated with circular punches; four on axe, and three on blade. L. 35 mm, W. 23 mm, Th. 2 mm, Wt. 4.87 g. Type 1A.
Current location: Musée de Berck-sur-Mer?
Bilbio: Mantel 1997: 267, fig. 4, Surf-7 and colour plate on p. 153.

FR6. Gué St-Léonard, Mayenne. Three miniature axes were found in the Mayenne river at this point in 1864 along with Roman timbers and bricks, and a very fragmentary milestone. The timbers presumably formed part of a bridge or dock, and the Roman road leading from Jublains probably crossed the Mayenne at this point. Other finds included a collection of 2,700 Roman coins ranging from the Republic to Tetricus, but with the vast majority belonging to Tiberius and other first century emperors. Many had been intentionally mutilated, which strongly suggests a ritual deposit.



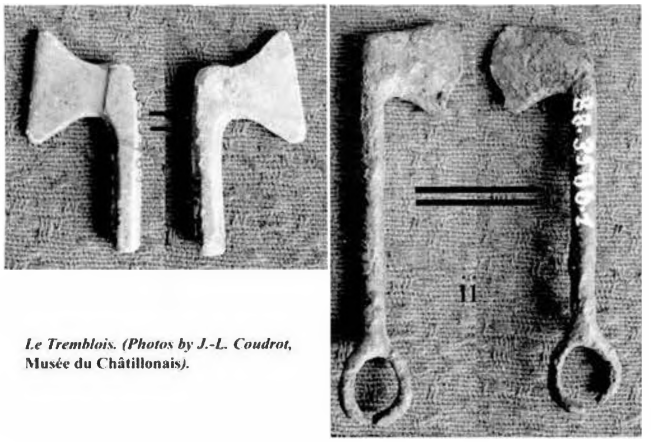
FR6. Gué St-Léonard (from Chedeau and de Sarcus 1865: pl. 3.10-12).

i) A complete bronze axe with a knob at the base of the cylindrical haft. The blade has no nape, and is wedge -shaped in cross section. It is roughly rectangular, with upper and lower faces diverging very slightly. The lower face is slightly shorter than the upper face, and the is subsequently a sloped backwards. The left cheek is incised with three vertical parrallel lines. L. 39 mm, W. 31 mm. Type 1B.
ii) A complete bronze axe with a plain cylindrical haft. The blade is roughly rectangular, though the upper and lower faces diverge slightly. L. 40 mm, W. 27 mm. Type 1B.
iii) A complete bronze axe with a plain cylindrical haft that bulges very slightly towards the base. The blade is roughly rectangular, though the upper and lower faces diverge slightly. The end of the bit is slightly damaged. L. 40 mm, W. 21 mm. Type 1B
Biblio: Fauduet 1983: 99-100, fig. 3D; Chedeau and De Sarcus 1865: 17-18 pl. *3.10-12.* On the site and other finds from the river here: *CAG* 53 (1992) 191.136 and Creuly 1864 and Ledru 1911: 187-189.

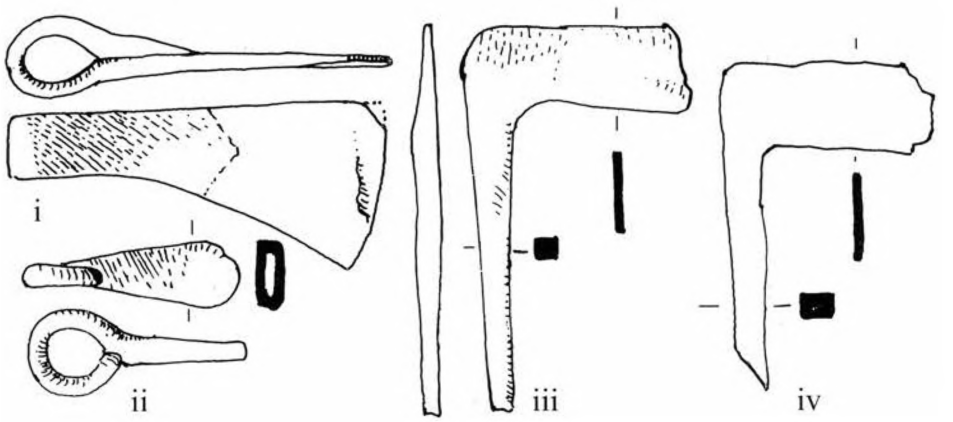
FR7. Le Tremblois, Villiers le Duc, Côte d'Or. A sanctuary situated in the forest of Chatillon, excavated in the 1960's. Occupied from the first century B.C. to the fourth century A.D.
i) A complete bronze Allmendingen type axe. The round haft is straight, and seems to curve slightly forwards where the blade emerges from it. A line on the right side clearly marks the end of the haft and the commencement of the flat blade. The upper face is concave, and the lower face convex, with both face being equal in length to create a symmetrical triangle. The entire blade points slightly upwards. L. 30 mm. Type 5.
ii) Iron axe with a straight rounded haft that terminates in a large ring. The upper and lower faces of the blade are straight, and converge outwards into a rounded bit. L. 54 mm. Type 4.
Current Location: Musée du Châtillonais, Châtillon-sur-Seine.
Biblio: Pers. Comm. J.-L. Coudrot, July 11th 2005.

FR8. Morvillers-Saint-Saturnin, Digeon, Somme. Founded no earlier than about 75 B.C., the site first consisted of a wooden Romano-Celtic sanctuary enclosed by two parallel trenches. It was renovated in the middle of the first century A.D., and was eventually replaced by a monumental stone structure flanked by two smaller *fana* no later than the early second century A.D. No terminal date for the site has been suggested, but a Merovingian cemetery eventually covered part of it. Though not comprehensively published, the finds include 6,000 coins, *fibulae*, jewellery and toiletry items, small knives, seal boxes, miniature bronze *fibulae* **(7.1, fig. 7.2)**and rings and discs **(2.5, fig. 2.6)**.
i) An iron axehead with an oval eye, which had been formed simply by folding a piece of metal. The upper face is straight, and rises upwards towards the bit. The lower face slopes sharply downwards. W. 49 mm. Type 2A.
ii) A very crude representation of an axehead in iron. The eye consists of a simple loop of metal, and the blade is flat and hollow. The upper and lower faces are straight and divergent, while the bit joins them in a well rounded curve. Possibly a pendant. W. 29 mm. Type 4?
iii) A complete iron axe. The haft is rectangular in cross section, and tapers towards the base. The blade is a flat regular (flag-shaped) rectangle. L. 58 mm, W. 29 mm. Type 1A.
iv) A complete iron axe, with a rectangular haft that is broken towards the base. The blade is a regular rectangle, and is broken towards the tip. L. 43 mm, W. 30. Type 1A.
Biblio.: Rapin 1986: 115-117, fig. A. For the most recent summary of the site see Delplace 1991: 196-198.

FR9. Mouzon, Bois du Flavier Ardennes. Five iron axe heads were found in this sanctuary and date to the early first century A.D.
i-v) Iron axe heads. All are type 2.
For details, bibliography and illustrations see: **3.3.5. fig. 3.5.i-iii.**



Le Tremblois. (Photos by J.-L. Coudrot, Musée du Châtillonais).

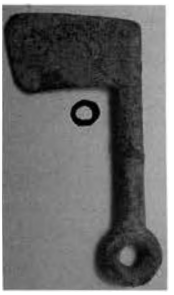


FR8. Morvillers-Saint-Saturnin ‚St. Digeon (After Rapin 1986: fig. A)

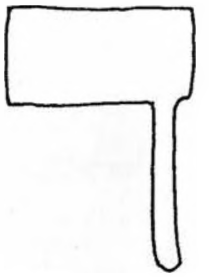
FR10. Murviel-les-Montpellier, Hérault (*Altimurium?*). An oppidum site with occupation dating from the early La Tène period through the entire Roman period. First excavated in 1863. *A complete bronze flag-shaped axe with a round haft that terminates in a suspension ring. The blade is thin, but wedge-shaped in cross section. A circle has been stamped on the left cheek, but is mostly filled with corrosion. L. 37 mm, Wt. 4.23 g. Type 1A.*
Current Location: Musée des Antiquités Nationales, St-Germain-en-Laye, Inv. Nr. 1366. Gift of de Saucey, 1863. (On Display: S. XI vit. 3. nr. 26)
Biblio: On the site see *CAG* 10.29.10-12 (Bonnet, 1946). Unpublished.

FR11. Oissel, Mare-du-Puits, Seine-Maritime. Excavated in the late 19th and early 20th centuries, the site consists of a single *fanum*, with a hypocausted building next to it. Finds from the *fanum* included 20 stone axes. *A complete bronze model axe. The blade is a regular rectangle. L. 35 mm, W. 25 mm. Type 1A.*
Current Location: Musée de Rouen.
Biblio.: Fauduet 1983: 99-100, fig. 3C. On the site: *CAG* 76 (1997).484.4*.449-455.

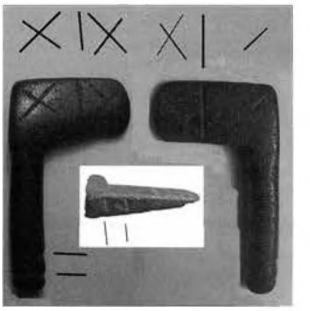
FR12. Orrouy. Champlieu, Les Tournelles. Forêt de Compiègne, Oise. This axe was found in a small *sacellum*, about one km from the larger sanctuary site which incorporated a Romano-Celtic sanctuary, baths, a theatre and houses, and is presumably related to it. The sanctuary at the larger site seems to have a first century B.C. pre-cursor, and the whole site was abandoned in the fourth century. The axe was found in the excavations of Albert de Roucy in 1862, and was presented to the Musée des Antiquités Nationales in 1870. *A miniature flag shaped axe in bronze. Both cheeks have incised decoration. Left: X| and right: X|X. Two parallel lines are also incised on top of blade as if to indicate the emergence of the haft. There are two circular near the bottom of the*



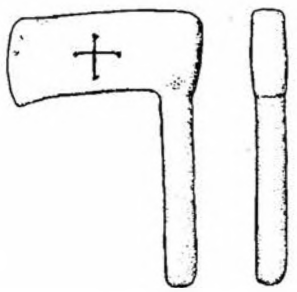
FR10. Murviel-les-Montpellier. (author, Musée des Antiquités Nationales, St.-Germaine-en-Laye).



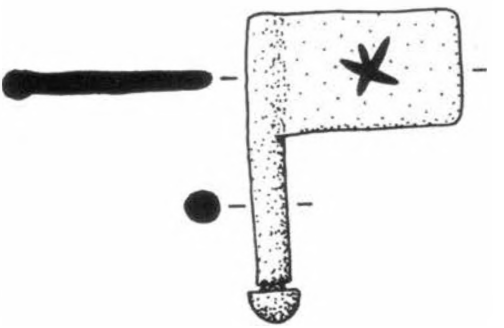
FR11. Mare-du-Puits. (From Fauduet 1983: fig. 3C.)



FR12. Orrouy. (Author, Musée des Antiquités Nationales.)



FR13. Panzoult. (from Boucher 2000: fig. 3.2).



FR14. Puy Lautaurd. (after Marquaire 1994: fig. 41).

circular haft, and another just before the start of the blade, perhaps indicating the start o the metal. L. 27 mm, W. 19 mm, Wt. 4.4 g. Type 1A.

Current Location: Musée des Antiquités Nationales, Inv. Nr. 14450-b. Don. IV.II 1870.

Biblio: Chew 2001: 164. On the site at Champlieu: Bromwich 2003: 58-60; Woimant 1993 and *CAG* 60 (1995).481.3*. 359. No published illustrations.

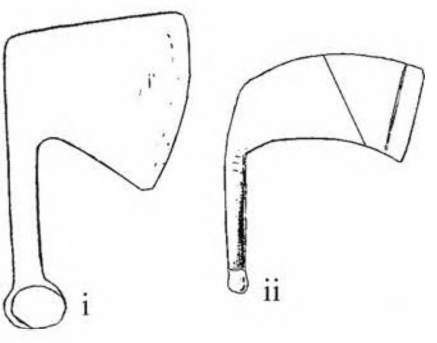
FR13. Panzoult, la Croix de Saint-Louis, Indre-et-Loire. A Roman villa was excavated here in the 19th century, but there is no reason to connect this recent find to it. *A complete miniature bronze axe with a round haft. The blade is a regular rectangle with no nape. The left cheek is inscribed with a cross. L. 36 mm, W. 25 mm, Th. 4.5 mm. Type 1A.*

Biblio.: Boucher 2000: 22 fig 3.2. On the villa: *CAG* 37.(1988).76.49

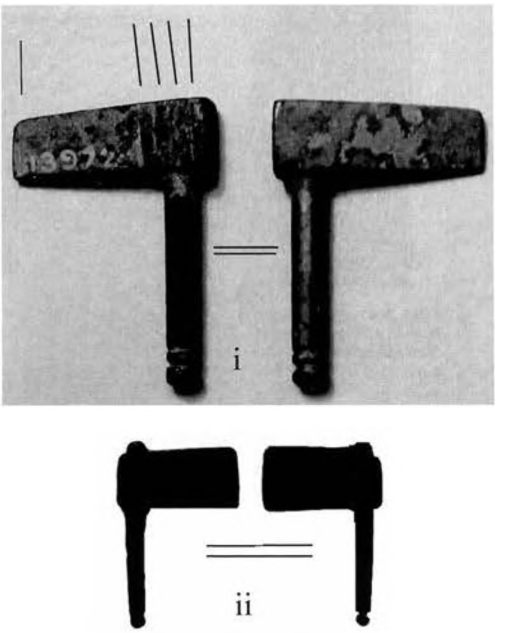
FR14. Puy Lautard, Creuse. Found in a large Romano-Celtic sanctuary site with two conjoined *cella* and a porticoed foyer. The occupation of the site dates from the turn of the era to the mid fourth century. Coin finds are more numerous in the Julio-Claudian period than any other, but the site shows no traces of pre-Roman occupation. *A complete bronze axe with a round haft that terminates in a hemispherical knob. The blade is a regular rectangle, thinner than the haft, and flat in cross-section. A star with five points has been scratched on the right cheek. The surface is said to show traces of gold plating. L. 41 mm, W. 28 mm, Dm. of handle 4.4 mm, Wt. 13.5 g. Type 1A.*

Biblio.: Marquaire 1994: 52-55, fig. 41.

FR15. Rennes, l'Ile-et-Vilaine. Two model axes were found in the river Vilaine in 1838 while the foundations of the Pont de Berlin were being dug. Other finds from the same spot included numerous bronze rings, *fibulae*, small glass and bronze vessels and bronze plaque inscribed 'NAVCTICEL.' The coins ranged from the Republic to the end of the fourth century A.D. These model axes were considered as toiletry utensils by Toulmouche at the time.



FR15. Rennes, 'La Vilaine.'
(After Toulmouche 1847: pl. ii.).



FR16. St. Etienne-Roilaye. Mont Berny
(Author, Musée des Antiquités Nationales).

i) Allmendingen type bronze model axe. The haft is straight, and terminates in a large spherical knob. The splayed axe-head has a curved cutting edge, and the haft finishes with a globular terminal. L. 42 mm, W. 24 mm. Type 5.

ii) A complete model axe with a round haft that terminates in a small knob at the base. The blade has no nape, and the upper and lower faces are convex and equally long. The bit is straight. Vertical and diagonal incised lines on the right cheek. L. 32 mm, W. 26 mm.

Biblio.: Kirk 1949: 34, Roman s; Toulmouche 1847: 112-113, pl. 2.15-16;*CAG* 35.234.199 (1990) which also described the axes as toiletry utensils.

FR16. St. Etienne-Roilaye, Mont Berny, Forêt de Compiègne, Oise. A secondary agglomeration on the road linking the central *civitas* of the Suessiones and that of the Silvanectes. A Roman road appeared here in Augustan period, but in part followed an older path. The site is located near the border of the two *civitates*, but in the territory of the Suessiones. It was excavated from 860-1870 by Albert de Saucey, who found a sanctuary, baths, houses and a necropolis. Occupation runs from the end of La Tène to the end of the third or fourth centuries A.D. Finds from the sanctuary include *fibulae*, mirrors, hairpins, coins (495 Roman, 79 Iron Age) votive wheels, bronze figurines, a terracotta Venus, and stone axes. The two axe models can be attributed to the sanctuary at Mt. Berny only on the basis of their votive nature.

i) A flag-shaped axe, with wedge shaped blade and a round haft which terminates in a decorative line and a round knob. The left housing and cheek is incised with four parallel vertical lines, and a thinner line is incised just before the bit. L. 39 mm, W. 29 mm, Th. 6-2 mm, Wt. 14.57 g. Type 1A.

ii) A complete bronze model axe, the round haft emerges above the blade, and terminates in a small spherical knob at the base. A single line has been engraved near the handle on the left side of the blade, probably to denote the handle. The blade of the axe is completely flat, and there are file marks on both sides. L. 24 mm, W. 16 mm, Th. 3-2 mm, Wt. 3.9 g. Type 1C.

Current Location: Musée des Antiquités Nationales, Inv. Nrs. 13972 and 14448 f (1/31 objets diverse).
Biblio: Chew 2001: 164 fig. 16. On Mt. Berny: *CAG* (60) 572 pp. 400-413 (on the sanctuary, 2.3*.402-406)

FR17. Saint-Jean-Trolimon, Tronoën, Finistère. The site was originally interpreted as an oppidum, though this is perhaps questionable. There is evidence of occupation from the early La Tène period through to the third century A.D. Other finds include numerous mutilated weapons and the linch-pin of a chariot. The axe was purchased from P. du Chatellier, the excavator, in 1924. *A flat bronze crude representation of an axe. The lower face of the blade is convex, and forms a short beard. The bit is straight. The upper face is flat, and curves around into*

the haft, which is round at the base. Probably cut from a copper sheet rather than cast. Slightly bent. L. 48 mm, W. 25 mm, Th. 1.5 mm throughout, Wt. 5.45 g. Type 5.
Current Location: Musée des Antiquités Nationales. Inv. Nr. 75800-d.
Biblio.: On the site: CAG 29 (1989).235.154 and du Chatellier 1877.

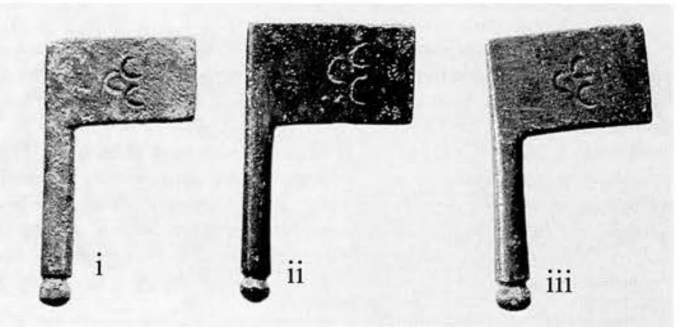
FR18. Saint Marcel, (*Argentomagus*) Indre. A Gallo-Roman *vicus* with a complex of three *fana*, the earliest of which seems to date to the Augustan period. The three axes were found in the abandonment level of the second *fana*, which was built in the Neronian/Flavian period, and seems to have been in use until the end of the third century.
i) Flag-shaped axe with a round haft terminating in a spherical knob. The blade has no nape, and is a regular rectangle. The right cheek has been stamped with three crescents. L. 35 mm. Type 1A.
ii) Flag-shaped axe with a round haft terminating in a spherical knob. The blade has no nape, and is a regular rectangle. The right cheek has been stamped with three crescents. L. 37 mm. Type 1A.
iii) Flag-shaped axe with a round haft terminating in a spherical knob. The blade has no nape, and is a regular rectangle. The right cheek has been stamped with three crescents. L. 36 mm. Type 1A.
Current Location: Musée d'Argentomagus, Saint-Marcel.
Biblio: Fauduet 1993: 145, Fig. 7b; Fauduet 1983: 99-100, fig. 3A; Coulon and Fauduet 1996: 122.

FR19. Vertault, Côte d'Or (*Vertillum*). A Gallo-Roman *vicus* surrounded by a *murus gallicus*. Irregular excavations took place between 1846 and 1939. The axe was discovered in the basement of a house in 1898. A large number of the houses on the site had well constructed cellars with niches, and these features may have served a cultic function. The houses probably had pre-Roman antecedents, and were in use up to the Antonine period. Known structures include a baths, a temple, houses and workshops. The foundation date is unclear, but the earliest houses may be from the first century B.C. The entire site was largely destroyed at the end of the third century.
A flag-shaped model axe with a round haft inscribed ALE on the left cheek. L. 33 mm. Type 1A.
Current Location: Musée du Châtillonais, Châtillon-sur-Seine.
Biblio: Pers. Comm. J.-L. Coudrot, July 11th 2005. On the site: Bromwich 2003: 236-240.

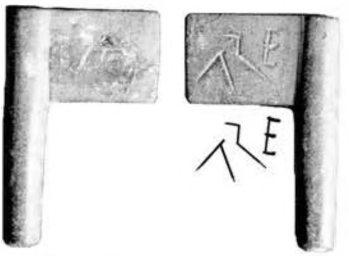
FR20. Viéil Evreux, Eure (*Mediolanion Aulercorum*). A vast site including a large temple with three cella, a theatre, a gallo-Roman temple near the modern hamlet of Cracouville and houses. The main period of occupation probably begins around 75 B.C., reaches a peak in the second century A.D., and declines rapidly in the third. The first three axes come from the Romano-Celtic style sanctuary at Cracouville, which was in use from the end of the La Tène to the third century A.D. Other finds from Cracouville include a flint arrowhead and axe, chist bracelets, and a Neolithic polished axe-head. *Three identical flag-shaped complete bronze axes with hafts terminating in spherical round knobs. The blades are regular rectangles, and are almost flat in cross section, being much slightly thinner than the diameter of the haft. None has a nape. Only the incised decoration differs slightly. All are type 1A.*
i) Blade left: one parallel vertical line near the housing. L. 48 mm, W. 28 mm.
ii) Blade left: two parallel vertical lines near the housing. L. 48 mm, W. 29 mm.
iii) Blade left: three parallel vertical lines near the housing L. 48 mm, W. 30 mm.
Another Axe has been found at an unspecified location in Vieil-Évreux itself, and is presumably from the temple.
iv) Miniature bronze axe with rectangular flag-shaped blade, a single line is incised near the base of the haft. L. 45mm, W. 28 mm.
Current location: Musée d'Evreux, Inv. Nr. 7227.2-4 and 4749.
Biblio: Fauduet 1992b: 148, nos. 1073-1076. On the site of Vieil-Évreux: CAG 27.329.Pp.153-156 (1993).

FR21. Lachau, Drôme. Finds of oil lamps and other objects suggest a natural sanctuary in this area. The axe was part of a group of at least six iron tools found in the late 19th century (see also **7.2.1, fig. 7.3.**). *An iron flag -shaped axe. L. 43 mm, W. 17 mm. Type 1A.*
Biblio: Welti 1956.

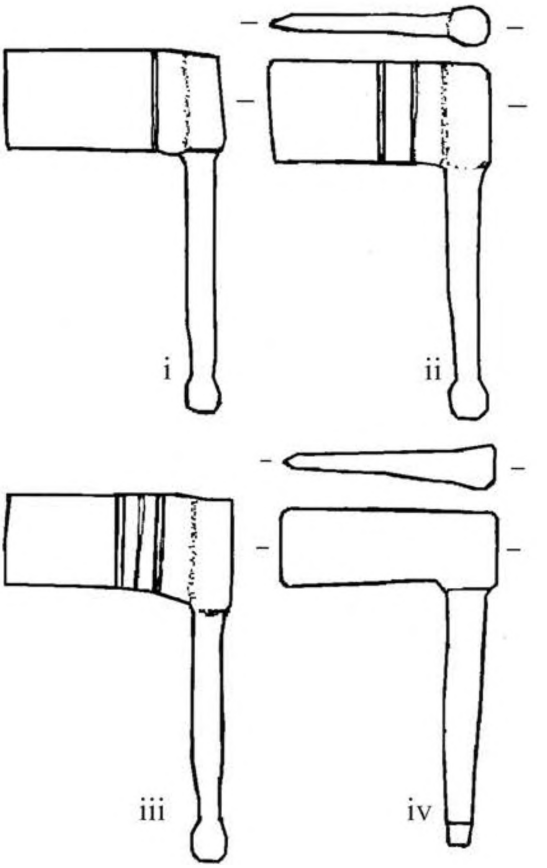
FR17. Saint-Jean-Trolimon
(Author, Musée des Antiquités Nationales)



FR18. Argentomagus
(From Coulon and Fauduet 1996: 122).



FR19. Vertault.
(J.-L. Coudrot, Musée du Châtillonais).



FR20. Vieil-Évreux.
(After Fauduet 1992: 149).

Germany (GE)

GE1. Bad Cannstatt, BadenWurtemburg. A cavalry fort built around A.D. 90 and abandoned in the 160's. Burials from the surrounding settlement cease around A.D. 200. Found in the Altenbergerfeld, from the Knorr collection. *Bronze model axe with round haft that extends through the blade. The upper face extends in a straight line from the back of the short rectangular nape. The lower face curves downwards, and the bit is straight. Described as the broken upper part of a hair-needle by Barthel, but the thickness of the haft, and the fact that it expands towards the base of the haft seems to speak against this. L. 35 mm, W. 17 mm. Type 2A.*
Biblio.: ORL B 59 Cannstatt Pl. 8.50. (Barthel 1907: 28, no. 54)

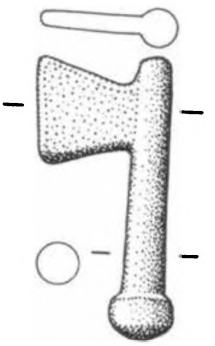
GE2. Herbolzheim, Kr. Emmendingen, Baden Würtemberg. A Roman settlement known since the 1970's from finds of tiles and stone foundations brought up by ploughing. The axe was found prior to 1990. A villa was excavated here in 1993, and seems to have been active from the beginning of the second until the third century A.D., but the model cannot be connected directly to it. *A complete bronze axe with a round haft terminating in a knob. The flat blade emerges from the haft with a straight upper and lower face. These diverge into a straight bit and form a symmetrical triangle. L. 38 mm. Type 4.*
Current Location: Landes Denkmals Amt Freibourg Inv. Nr. Herb. 41
Biblio.: *Fundberichte Baden- Würtemberg* 15.629. Romische Zeit: *s.v.* Herbolzheim. (Heinrich-Leister, 1990); Planck 2005: 125 *s.v.* Herbolzheim (Rothbacker).

GE3. Mainz. Found in the recently excavated sanctuary of Isis and Magna Mater. The temple was founded in the second century A.D., and remained active until at least the end of the third. *A wedge-shaped bronze axehead, perhaps 40-50 mm long, with a round shaft-hole towards the back of the nape. Almost a bearded axe, but with a straight bit.*
Current Location: On display in the Römerpassage at the site of the excavations.
Biblio.: Whitteyer 2004: 35, with photo. A fuller publication is forthcoming from the Philip von Zabern Verlag.

GE4. Möhn, Rheinland-Pfiaz. A complex of three Romano-Celtic style sanctuaries near Trier excavated in the late 19th century. Coin finds range from the first to fourth centuries A.D. Identified as a miniature axe by Forrer. *A bronze rod with a blade that extends from it at a right angle. The blade thins towards the bit. L. 63 mm.*
Biblio.: Forrer 1948: 76, pl. 12.11; Hettner 1901: 22, cat. no. 31, pl. 4.73. For a short summary on the temple: Cüppers 1990: 480.

GE5. Rötenburg, Württemberg. *Silver model axe of Allmendingen type. The haft ends in a spherical knob. L. 35 mm. Type 5.*
Biblio.: Forrer 1948: 53, pl. 13.1.

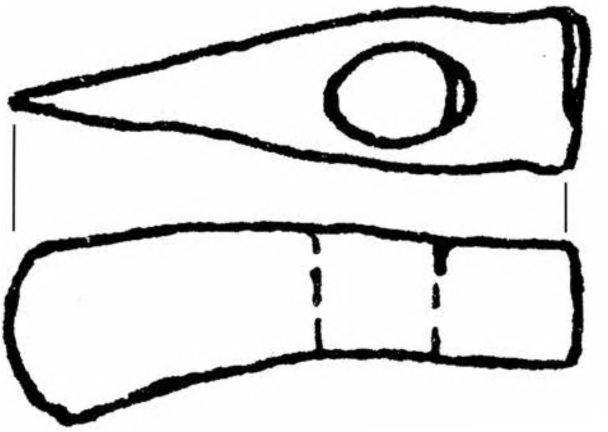
GE1. Cannstatt.
(Barthel 1907: pl. 8.50).



GE2. Herbolzheim
(After Heinrich-Leister 1990).

GE4. Möhn
(After Forrer 1948: pl. 12.11).

GE5. Rötenburg
(After Forrer 1948: pl. 13.1).



GE6. Saalburg. (After Pietsch 1983: pl. 2).

GE7. Straubing. (After Walkes 1965: pl. 98.27).

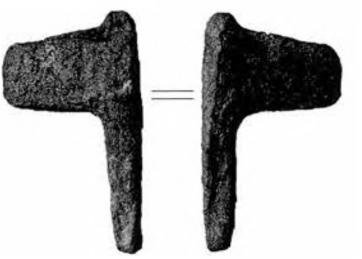
GE6. Saalburg, Hessen. Old finds from the fort or *vicus*. The fort was established A.D. 90, and abandoned in 260. Other "miniatures" axe-heads from this site are probably really functional small axes. *An iron axehead. Wedge-shaped in cross-section, the blade droops downwards towards the bit. Somewhat similar to* ***FR3****. L. 75 mm, Wt. 99 g.*
Current Location: Saalburg Römerkastell, Inv. Nr. S938.
Biblio.: Pietsch 1983: 12, no. 33 (with older bibliography), pl. 2.

GE7. Straubing (Bavaria). Found in the *vicus* east of the Roman fort in 1942. The fort was first constructed in the early Flavian period. Both fort and *vicus* were finally destroyed by Germanic incursions in the first half of the third century A.D. *A complete bronze bearded axe. The slightly curved haft is round and extends through the blade, where it terminates in narrow finial. The upper face and bit are straight, while the lower farces curves sharply downwards to form the beard. The right cheek is decorated with two circle and dot patterns. Two faint parallel vertical lines are incised on the nape, and between the two circles. It is quite possible this is simply a fragmentary hairpin. L. 39 mm, W. 15 mm.*
Current Location: Straubing Museum. Inv. 3313
Biblio.: Walke 1965: pl. 98.27; Green 1984a: 328, AX 22.

GE8. Tawern, Metzenburg (Rheinland-Pfalz). From the temple complex that was in use from the first century A.D. to the end of the fourth. *Complete bronze model axe. The round haft emerges from the top of the blade. The blade is without a nape and it a perfect rectangle in form. It is wedge-shaped in cross-section. Very thin and badly corroded with thick rough green patina. L. 33 mm W. 23 mm, Wt. 4.48 g. Type 1B.*
Current Location: Rheinisches Landesmuseum.Trier, Inv. Nr. 1986.9 Fnr. 305.
Biblio.: Unpublished. On the site see Cüppers 1990: 569-571.

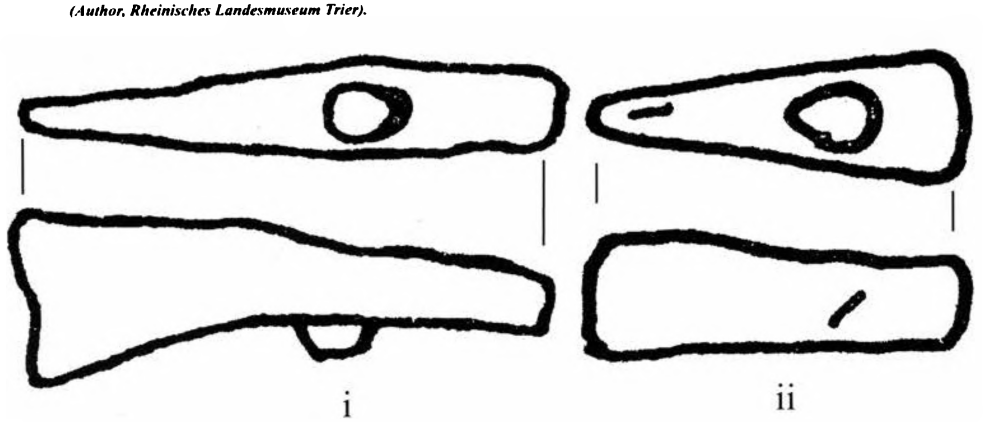
GE9. Trier or surroundings: *Bronze axehead, with a curved triangular blade. The model is very small and finely worked, with oval piercing for the now absent shaft. Quite possibly the head of a hairpin, rather than a model. L. 16 mm, W. 9 mm (end of blade). Type 4.*
Present Location: Private Collection, Trier. Unpublished.

GE10. Zugmantel, Hessen. Old finds from the fort or *vicus*. The fort was established A.D. 90 and abandoned in 260.
i) An iron axehead with a long rectangular nape, almost a dolabra. The upper and lower faces are curved. Wedge-shaped in cross section. A fragment of the haft remains. L. 69 mm, Wt. 35 g.
ii) An iron axehead. The upper face is straight, and the lower face slopes gently downwards. L. 59 mm, Wt. 60 g. Type 2.
iii) As last.
Current Location: Saalburg Römerkastell, Inv. Nr. ZM 2134, ZM 860, and ZM2136.
Biblio.: Pietsch 1983: 12, nos. 34, 35 and 35a (no illustration) with older bibliography), Pl. 2.



GE8. Tawern.
(Author, Rheinisches Landesmuseum Trier).

GE9. Trier.
(Author, Rheinisches Landesmuseum Trier).



GE10. Zugmantel.
(After Pietsch 1983:p l. 2).

Switzerland:

SU1. Aegerten, Tschannematte, Bern. A group of four pits containing waste from a pottery workshop were excavated here. The site is situated at a crossing point on the ancient course of the Zihl river, and probably included a port. A *burgus* was constructed here in the late fourth century. The sherds in the pits dates between A.D 25 and A.D. 75, but the miniature axe was a surface find. *Iron Allmendingen type axe. The haft terminates in a hemispherical knob. The end of the left cheek is engraved with a V. L. 153 mm, W. 51 mm. Type 5.*
Current Location: Archäologisches Dienst des Kanton Berns (?).
Biblio.: Bacher and Suter 1999: 49, fig. 11.1450.

SU2. Allmendingen, Thun. The first six were found in the first excavations of this Romano-Celtic sanctuary in 1824/5. Further excavations were undertaken in 1926, 1967 and since 1992. These excavations have revealed a complex of seven small sanctuaries situated within a *temenos* wall, a water basin and an altar. A series of buildings on that back onto the north side of the *temenos* wall are likely to have served a secular function. There is good evidence (including the inscribed axes) for the worship of multiple deities on the site. These must have included Jupiter, Neptune, Mercury, Diana, Minerva, a goddess with a rudder (presumably Fortuna) the Matres, and the gods of the Alps. Other important finds include fragments of a colossal statue of an enthroned Jupiter, a life-sized bronze head of Diana, a large altar dedicated to the gods of the Alps, a golden votive plaque, and numerous coins. There is no evidence for pre-Roman use of the site, and the earliest finds date to about A.D. 50. Activity on the site continued well into the fourth century. *All six are complete bronze axes, and have the same basic form but differ in the inscriptions. The hafts terminate in a small knob at the base, and are cylindrical until about half way up. At this point the haft and the blade are completely flat and are consistently about 1 mm thick. The upper and lower faces of the axe emerge out of the blade itself and diverge sharply outwards. The bit is straight.*
i) Inscribed below the upper face: IOVI above a triangle with straight edges. L. 92mm. Type 5. (non vidi)
ii) Inscribed below the upper face: MERCURIO above a wavy triangle. L. 78 mm. Wt. 16.49g. Type 5.

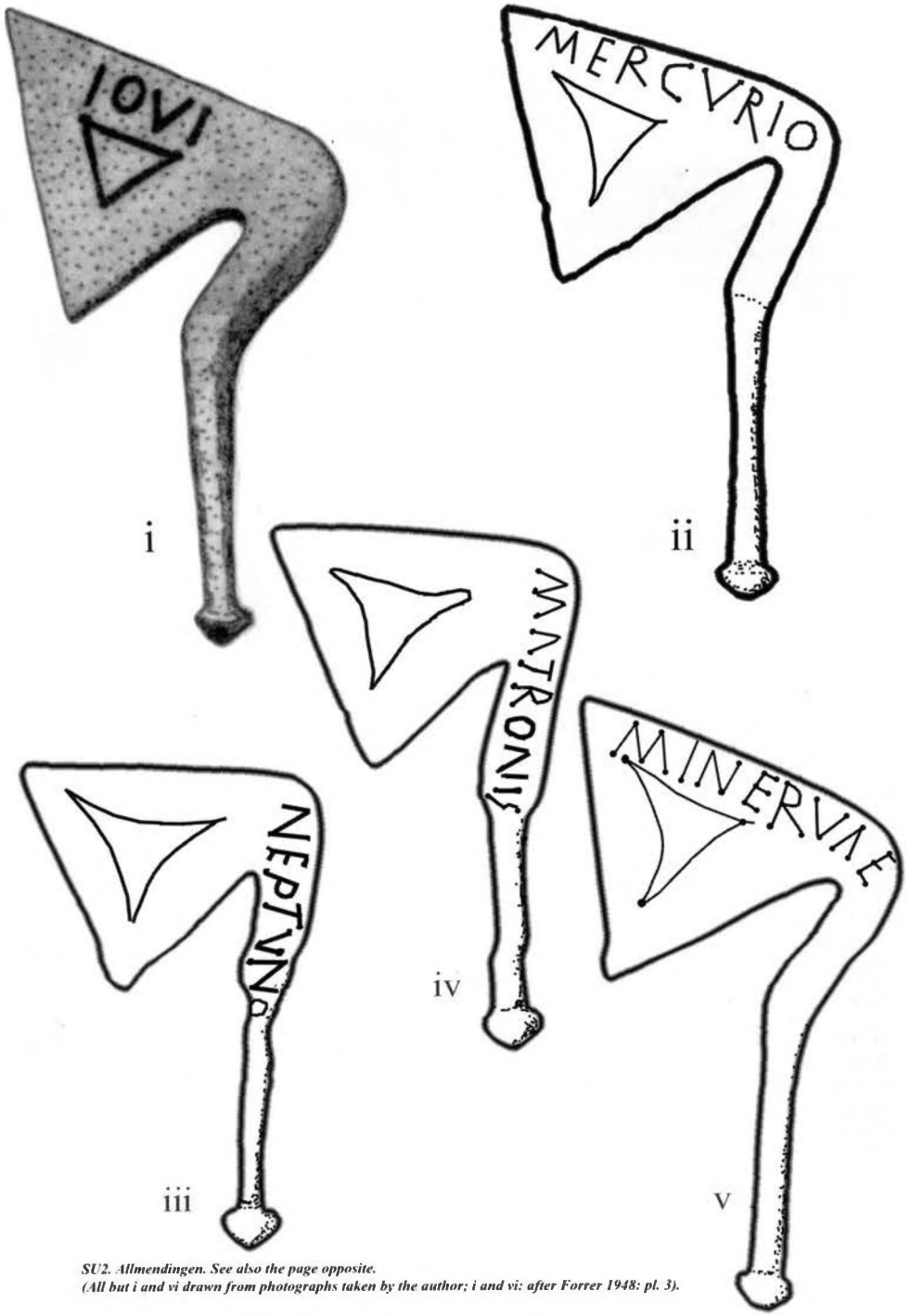
iii) Inscribed along the upper part of the haft: NEPTUN0 and with a wavy triangle on the left cheek. L. 66 mm. Wt. 11.09 g Type 5.
iv) Inscribed along the upper part of the haft: MATRONIS and with a wavy triangle on the cheek. L. 71 mm, Wt. 15.17 g. Type 5.
v) Inscribed below the upper face: MINVERVAE above a wavy triangle. L. 82 mm, Wt. 20.81 g. Type 5.
vi) Inscribed below the upper face: MATRIBVS above a wavy traingle. L. 80 mm. Type 5. (non vidi)
vii) Discovered in the 1967 excavations in the temple with an altar dedicated to the gods of the alps (*alpibus*). *Inscribed on the haft MINVERVAE. L. 75 mm, W. 42 mm, 14.87g.*
Current Location: Bern, Historisches Museum. i) no inv. nr. ii) inv. nr. 1632 iii) inv. nr.1633 iv)inv. nr.1631 v) inv. nr. 1634 vi) inv. nr. 14 340. vii) Inv. Nr. 59, 484.
Bilbio.: On the site and the axes in general see Forrer 1948: 15-21 and Martin-Kilcher 1996. On the axes specifically: i-vi) Forrer 1948: 72 nr. 1.1-6. Pl. 3.1-6 and 4.2-6 35; CIL 13.5158 (rev. 2855); Cumont 1896: 2.305. figs. 450-455, vii) Martin-Kilcher 1996: 17.

SU3. Augst, Baselland (*Augusta Raurica*). A major Roman settlement founded in 44 B.C., it later became the capital of Raetia, and was occupied until the fourth century A.D.
i) Found in a Roman house in Insula 7 on the Kastelen plateau in 1915. *A complete bronze axe with a round straight haft that terminates in large spherical knob. A single line is engraved on the haft just before the blade begins. It is possible that this represents the beginning of tubular iron housing as seen on some life-sized Roman axes. The housing also seems to extend above the surface of the blade. The upper face slopes upwards gently and the lower face abruptly downwards. Both faces emerge directly from the haft; there is no nape. The bit is straight. L. 52 mm. Type 5?*
ii) Found in excavations of Insula 34 in 1977. The partially excavated block contained houses and workshops, which seem to have included a bronze workshop. The axe was found inside a building in a context dated between A.D. 10 and 70. *Compete bronze axe with a straight round haft. The upper and lower faces are curved. Badly corroded. L. 54 mm. Type 3A?*
iii) Found in the second century A.D. basement of a house in this domestic suburb south of the city. *An ornate double axe in tinned bronze. Each side curving backwards into a volute at the heel and toe. The bottom half of one side of the blade is broken. An X is engraved over the housing. The haft is also broken at the base, but may have terminated in a ring. L. 25 mm.*
Current Location: i) Sammlung Frey, Inv. Nr. F0442 ii) Inv. Nr. 1977.8502. iii) Liestal Museum Inv. Nr. 1967.18769.
Biblio.: On Augusta Raurica in general see Drack and Fellmann 1988: 332-333. i) Kaufmann-Heinimann1998: 79 with illustration; Fünfschilling 1993: 141, pl. 141. ii) Kaufmann-Heinimann 1998: 106, S106. iv) Kaufmann-Heinimann 1998: 117-118; Bender 1975: 52 fig. 18.

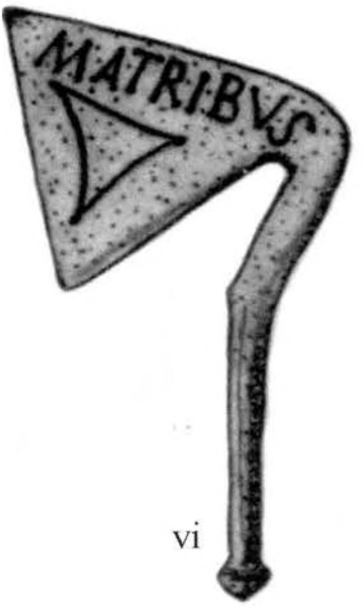
SU4. Avenches, Vaud. (Aventicum Helvetiorum.) Several axes have been found in various locations in this important Roman city over the years. It is not surprising that the exact origin of the older finds is unknown.
i) Iron Allmendingen type with knob at base of the haft, L. 98 mm. Type 5. (Non vidi).
ii) Iron axehead with hole for grip and short nape. The upper face is straight and rises gently upwards. The lower faces curves upwards after the haft, and then abruptly dowwards to form a large curved bit. W. 70 mm. Type 2A. Non vidi.
iii) Allegedly found in 1827 near a Roman wall. I am informed by the conservator at Avenches that this object is probably a 19th century forgery, though I have not seen it myself. The unusual form and condition certainly lend the piece to suspicion. *A bronze Allmendingen type with a smoothly curved hexagonal haft that terminates in a short hemispherical knob. The upper and lower faces of the blade slope symmetrically out of the haft, and are joined by a straight bit. The blade left has a round silvered inlay in which a winged victory is depicted standing on a globus and holding a laurel wreath facing left. L. 113 mm. Type 5.*
Current Location: i) Musée cantonale d'archéologie et d'histoire Lausanne. Cat. Nr. 32,256 (Secrétan bequest); ii) Musée Historique, Lausanne. No Inv. Nr.; iii) Musée cantonale d'archéologie et d'histoire Lausanne, Inv. Nr. 00090.
Biblio.: i) Forrer 1948: 72, 3.1, pl. 7.5.; ii) Forrer 1948: 72, 3.1, pl. 7.7; iii) Forrer 1948: 27 72, 3.1, pls. 5.4, 6.4a, 7.6.

SU5. Avenches, The Temple on Insula 23, Vaud. From the Romano-Celtic temple located on this block. The stratum in which the axe was found (K 05433) is dated to the first and second centuries A.D. *A very fragmentary iron Allmendingen type axe. In three pieces, the head and two very small parts of the haft. W. 26 mm, Wt. 2.07g (head only). Type 5.*
Current Location: Musée romain d'Avenches. Inv. Nr. 82/02601.
Unpublished. Information from the Musée romain d'Avenches.

SU6. Avenches, Temple Grange-des-Dîmes, Vaud. Located next to the Cigognier temple, this smaller temple has a square Romano-Celtic *cella* that is mounted on a podium. The axe model was found in the surface soil (context 2458). The site was used from the first to third century A.D.
i) An iron Allmendingen type axe with a round haft that terminates in a knob. The left cheek is engraved with an X. The bit and upper face of the blade are damaged, and have been restored. L. 89 mm, W. 32 mm. Type 5.



SU2. Allmendingen. See also the page opposite.
(All but i and vi drawn from photographs taken by the author; i and vi: after Forrer 1948: pl. 3).



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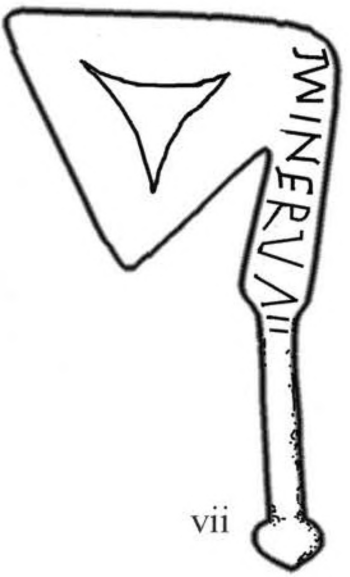

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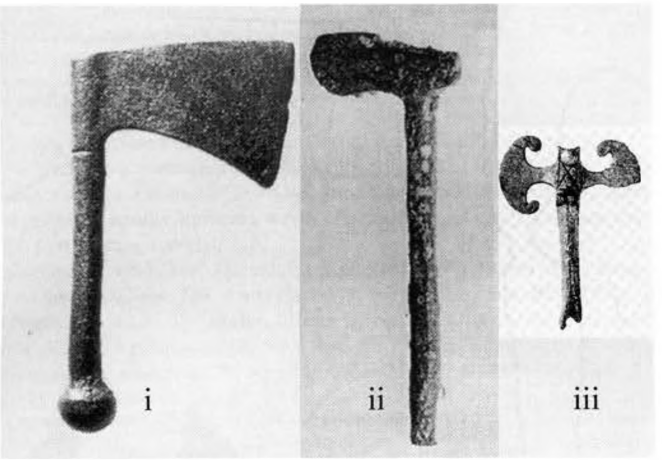
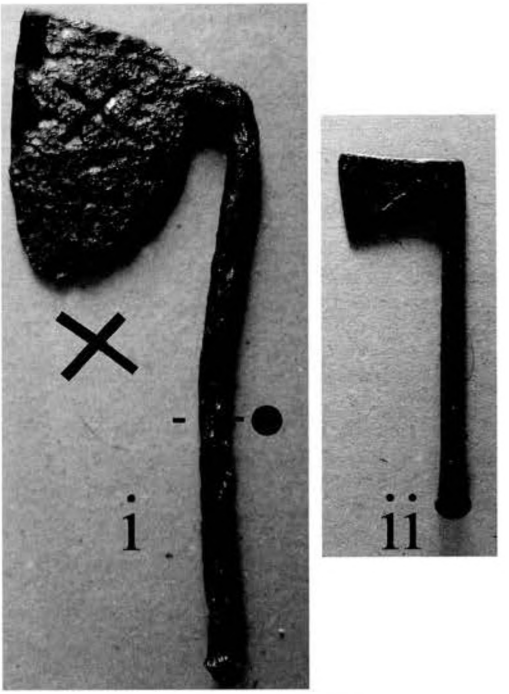
SU2. Allmendingen con't.

SU1. Aegerten, Tschannematte.
(After Bacher and Suter 1999: fig. 11.1450).

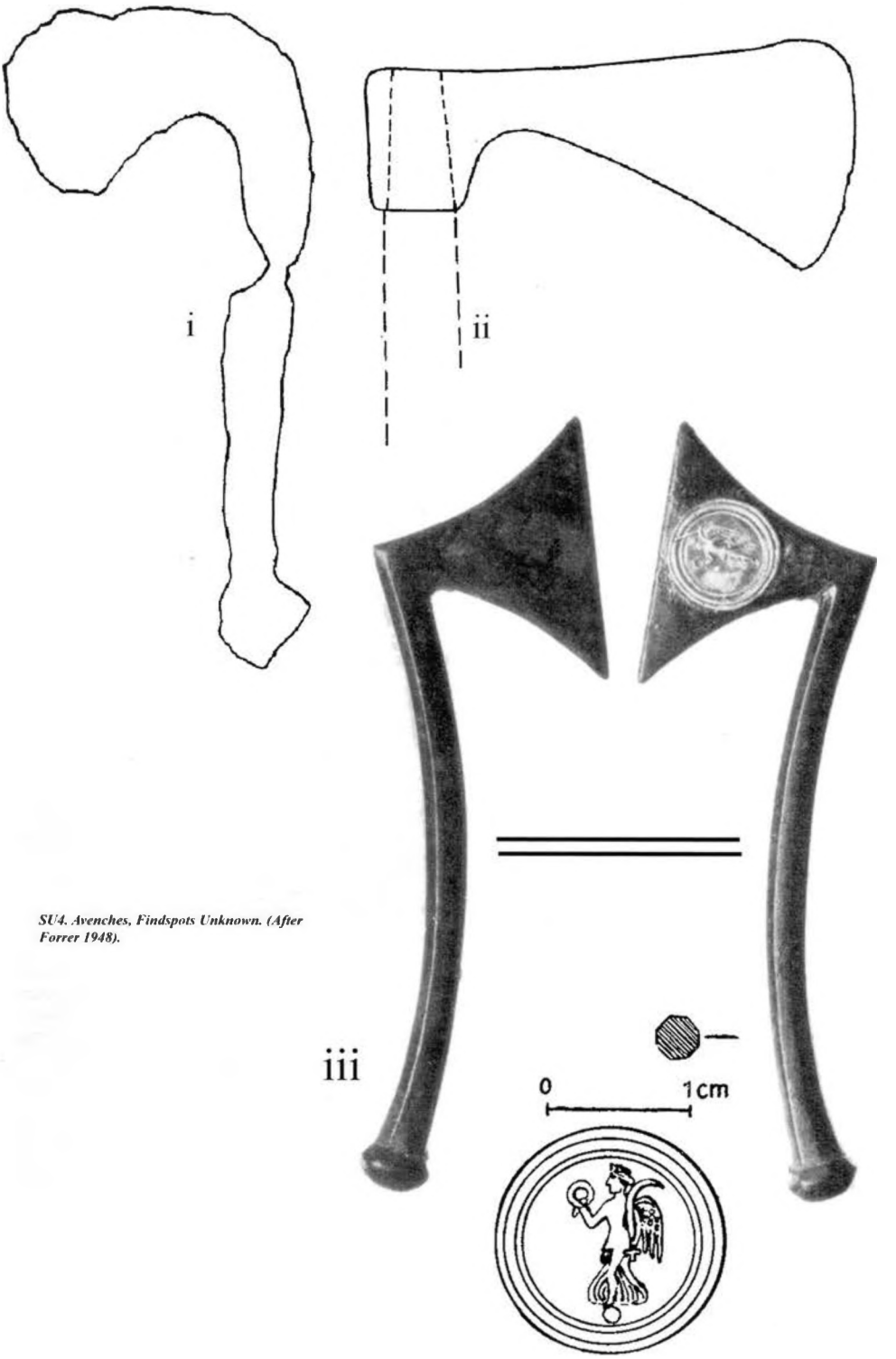


SU3. Augst
(i: After Forrer 1948: pl. 10.7; ii-iv: Kaufmann-Heinimann 1998: 79, S106, and 117).

SU5. Avenches, temple on insula 23
(Author, Musée romain d'Avenches).



SU6. Avenches, Grange-des-Dîmes.
(Author, Musée romain d'Avenches.)



SU4. Avenches, Findspots Unknown. (After Forrer 1948).

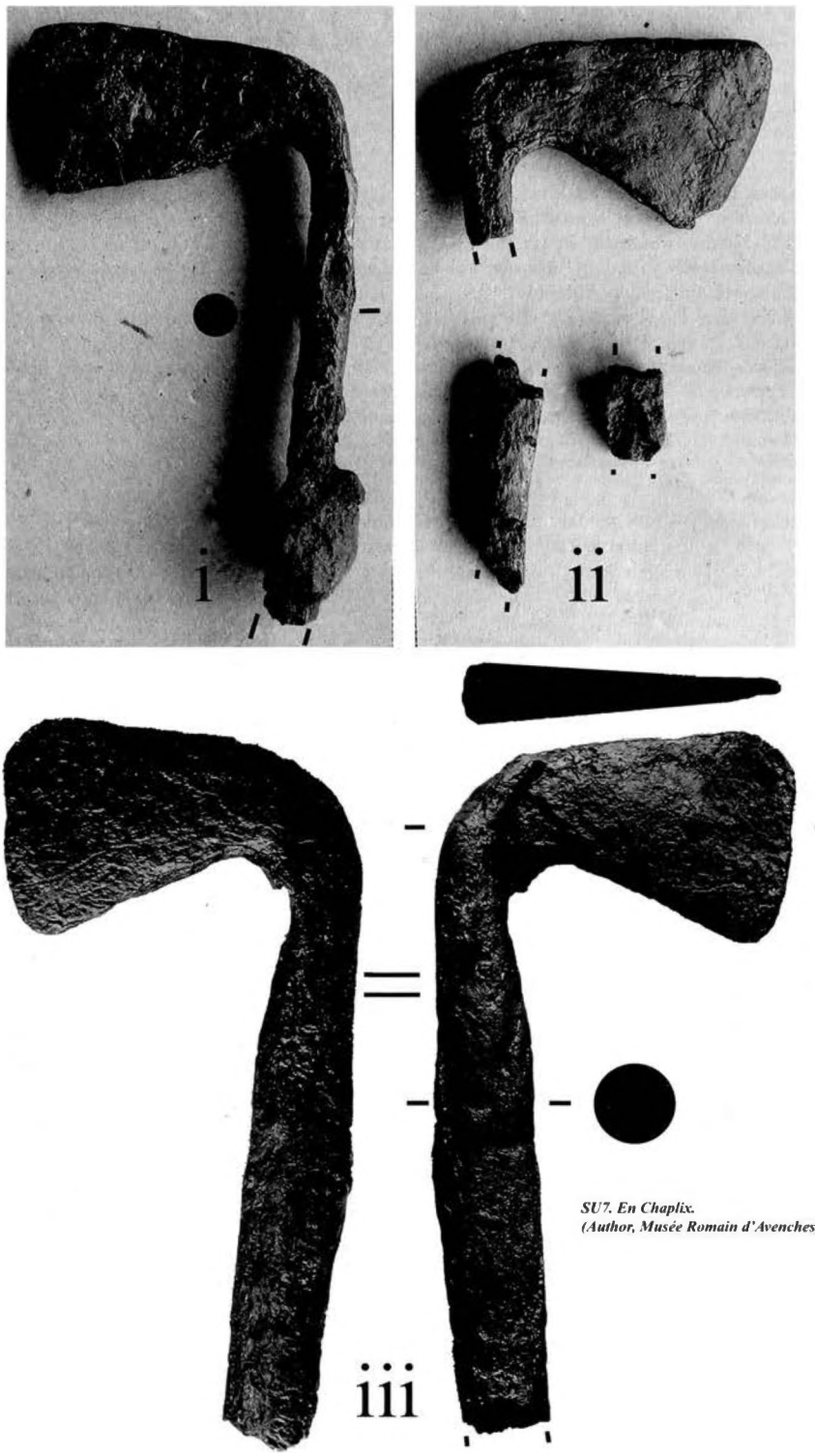
ii) A bronze Allmendingen type with a triangle engraved on the left cheek. The haft is straight, round in cross section, and terminates in a roughly spherical knob. The blade itself is almost like the symmetrical blades of type 4, and emerges from the haft at a right angle. L. 48 mm, W. 17 mm. Type 1B.
iii) Iron model axe with a triangular blade with almost straight haft, L. 73 mm, W. 26 mm, Wt. 14.68 g. Non vidi, but described in the database at Avenches. Probably type 5.
Current Location: Musée romain d'Avenches. i) Inv. Nr. 63/02514; ii) Inv. Nr. 71/01204. iii) Inv. Nr. 92/09080-15.
Biblio: On the temple see Drack and Fellmann 1988: 341-342; Bögli 1996: 16-21. Unpublished.

SU7. Avenches, En Chaplix, Vaud. Situated about 500 m from the the north-east gate of Avenches, the site consists of a cemetery with two associated Romano-Celtic sanctuaries. Both were probably related to a large villa. The first sanctuary was established in 15/10 B.C., and the site was dismantled by the end of the third century A.D. The main period of activity, however, was the first century A.D. All three axes were surface finds, and were associated with first century material.
i) An iron Allmendingen type model axe. The relatively straight haft is broken at the base. The entire piece is badly corroded. L. 82 mm, W. 42 mm, Dm. 6 mm (haft), Th. of blade: 4-2 mm, Wt. 28.87 g. Type 5.
ii) An iron Allmendingen type model axe. Broken in three pieces, consisting of the head and two segments of the haft. Badly corroded. W. 20 mm (of blade), Th. 5-2.5 mm, Wt. 12.39 g (blade). Type 5.
iii) An iron Allmendingen type model axe, the very thick round haft is broken at the base. L. W. 47.5 mm, L. 99 mm, Dm. 11 mm (haft), Th. 8-2 mm (blade) Wt. 37.69 g.
Current Location: Musée romain d'Avenches. i) Inv. Nr. 89/7201/1; ii) Inv. Nr. 89/7201-11; iii) Inv. Nr. 89/7200.Unpublished. Information kindly provided by Daniel Castella.

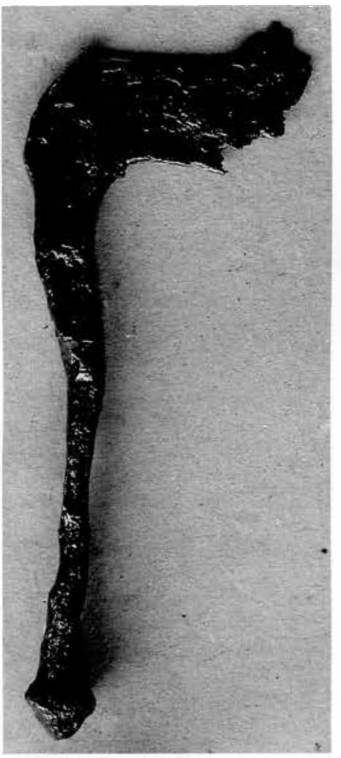
SU8. Avenches, Joncs, Vaud. Not far from Avenches on Lake Morat. An old find with no exact context. It is erroneously described by Forrer as coming from the Cigognier temple in Avenches.Iron Allmendingen type model axe. The haft is roughly square in cross section, and terminates in a conical knob. The haft bends back towards the mid point, and then curves forward into the badly preserved blade. Very badly corroded. Original surface lost. L. 95 mm, Wt. 16.82 g. Type 5.
Current Location: Musée romain d'Avenches. Inv. Nr. 1902 / 03304 (formerly Inv. Nr. 2329); possibly formerly in Lausanne Musée Historique Cat. Nr. 284.
Biblio.: Forrer 1948: 72, no. 2.1, pl. 7.1.

SU9. Baden, *Aquae Helvetiae*, Aargau. The first two axes were found in a layer of ash in a sanctuary excavated by E.A. Stückelberg in the late 19th century. The identification of the building as a temple was based on the small finds, which included numerous bronze phallic amulets, a gold finger ring, and a stone goat's head. Coins included numerous issues of the Sequani, and Republican and imperial issues from Augustus to Marcus Aurelius. Activity on the site probably begins in the late La Tène and ends when it was destroyed by fire around A.D. 150.
i) Iron Allmendingen type. L. 92 mm. Type 5.
ii) Iron Allmendingen type. L. 117 mm. Type 5.
iii) Exact findspot in Baden unknown. *Iron axe with separately attached grip through head. The housing of the axe is curved around the haft, in a very non-Roman fashion, perhaps suggesting a post antique date. L. 155 mm, W. 58 mm.*
Current Location: i) Landesmuseum Zürich Cat. Nr. P10907; ii) Landesmuseum Zürich; iii) Landesmuseum Zürich Cat. Nr. P 5509.
Biblio.: i) Forrer 1948: 33, 72, 4.2, pl. 9.2; ii) Forrer 1948: pl. 9.3 (erroneously not listed in Forrer's catalogue) Stückelberg 1893 iii) Forrer 1948: 33, 42, 72, no. 4.1, pl. 10.1.

SU10. Engelhalbinsel, Bern, vicus Reichenbachwald. A relatively large Roman *vicus* was located here on a peninsula of land surrounded by the Aare river. The first three were found 1926, the fourth in 1928 during excavations conducted by Tschumi. The *vicus* includes a complex of three Romano-Celtic temples, an amphitheatre, baths, pottery workshops and houses. Coin finds begin with Augustus and stop between A.D. 165 and 211. The exact findspot of the axes is not available, so it is possible that they come from the temple complex.
i) Bronze Allmendingen type with straight haft that is circular in cross section. The left cheek is incised with a triangle. L. 56 mm, Wt. 4.44 g. Type 5.
ii) Bronze Allmendingen type model axe.The haft is circular in cross section, and suddenly becomes flat where the curve of the blade begins. The base of the haft ends in a small knob, and there is a small cyclindrical piece of bone (?) wrapped around the bottom end of the haft. The left cheek is decorated with a triangle, and various plain circles and double concentric circles. L. 60 mm, Wt. 5.27 g, Type 5.
iii) Iron Allmendingen type axe. The haft ends in a large hemispherical knob. The blade is flat, and the left cheek is inscribed with a triangle. L. 101 mm, Wt. 10.88 g. Type 5.
iv) A bronze model axe. The haft is gently curved, circular in cross section, and terminates in a spherical knob at the base. The haft swells slightly towards the top, and curves forwards. A raised rectangular bump marks the beginning of the blade, and runs around the entire blade. This is surely a representation of the binding which held the socketed haft in place. The blade itself is wedge-shaped in cross section. The upper and lower faces



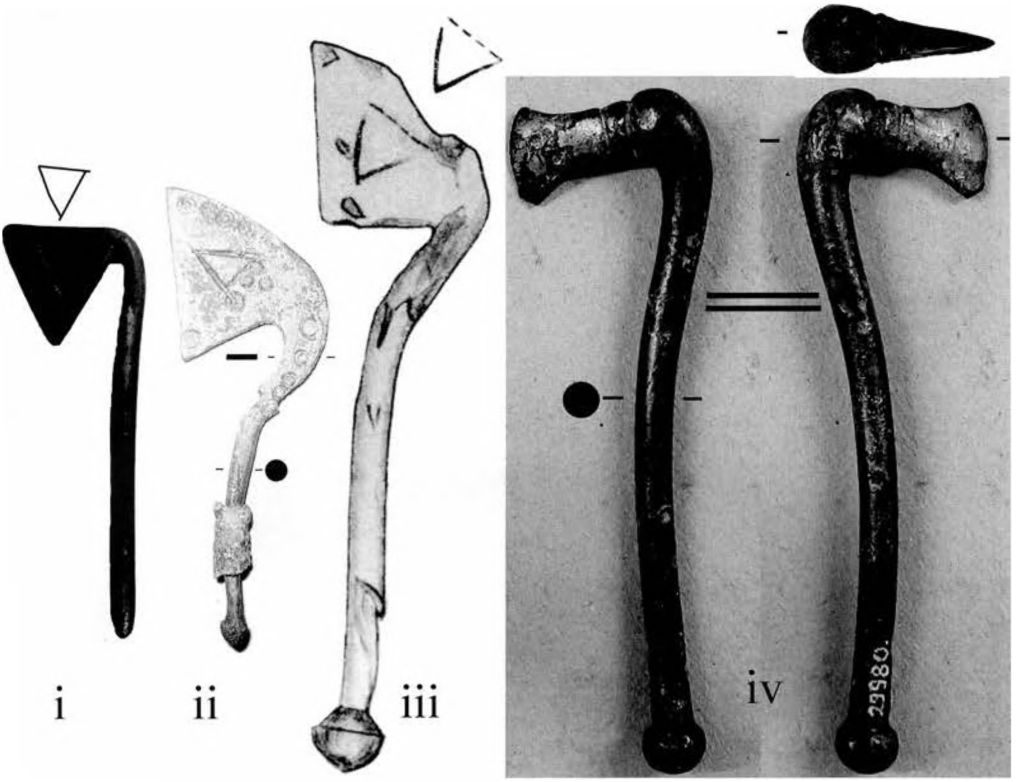
SU7. En Chaplix.
(Author, Musée Romain d'Avenches).



SU8. Les Joncs, Avenches.
(Author, Musée romain d'Avenches).

SU9. Baden Aquae Helvetiae.
(From Forrer 1948: pl. 9.2).

SU11. Bern, Engelhalbinsel, Rossfeld.
(Author, Bern Historisches Museum).



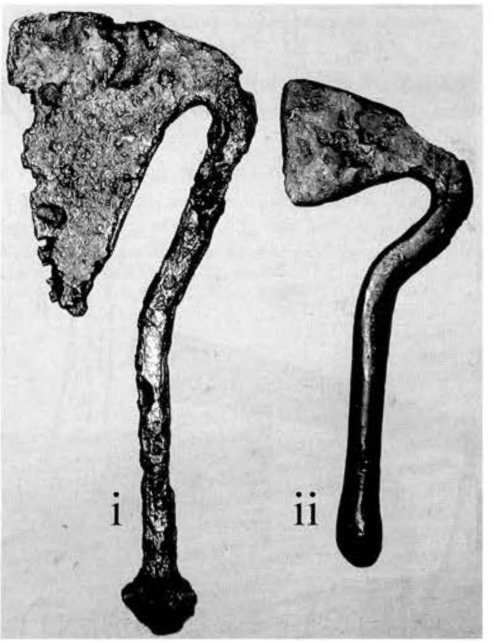
SU10. Bern, Engelhalbinsel, vicus Reichenbachwald.
(i,ii and iv: author; iii: Forrer 1948: pl. 8.3)

curve outwards to form a slightly enlarged blade with a rounded bit. L. 91 mm, W. 25 mm., Dm. 5 mm (haft). Wt. 22.41 g. Type 5.
Current Location: Bern, Historisches Museum. i) 29,188, ii) Inv. Nr. 29,189. iii) Inv. Nr. 29,358. iv) Inv. Nr. 29980.
Biblio.: i-iii) Forrer 1948: 30, 73, 7.1-3, pl. 8.1-3 and. Tschumi 1926: 74. iv) unpublished.

SU11. Bern, Engelhalbinsel, Rossfeld, Bern. A Roman cemetery was excavated here in 1900 and 1908, but a votive inscription was also found. The axe was found in 1908 according to the museum database. See commentary above on *vicus* Reichenbachwald. *An iron Allmendingen type axe. Badly corroded and broken along the haft, which is roughly rectangular in cross section. Covered in a thick layer of rust. L. 85mm. Type 5.*
Current Location: i) Bern, Historisches Museum. Cat. Nr. 26,391.
Biblio.: vi) Forrer 1948: 73, nr. 7.6 Pl. 13.3; On Rossfeld see Drack and Fellmann 1988: 366.

SU12. Bern, Engelhalbinsel, Engemeistergut, Temple II (Bern). Found in 1933, in the second of the three Romano-Celtic temples. Tschumi excavated the first two of these, and a third was only discovered in 1969. The dating presumably follows the coins, as described above, i.e. Augustus to A.D. 165-211.
i) Iron Allmendingen type axe. L. 82 mm. Type 5.
ii) Iron Allmendingen type axe. The haft terminates in a large knob. The blade is not symmetrical, with the heel extending much further than the toe. L. 107 mm. Type 5.
Current Location: Bern, Historisches Museum. Inv. Nr. 31,387 and 31,388.
Biblio.: Forrer 1948: 73, nos. 4-5, pl. 8.4-5; Tschumi 1934: 91. On the temples see Drack and Fellmann 1988: 365.

SU13. Brügg, Pfeidwald, Bern. No exact information on the findspot is available, and the museum's database record states that the findspot is possibly incorrect. *An iron Allmendingen type model axe with a flat haft that terminates in a conical knob. The left cheek is engraved with a triangle. The upper bit and face are damaged. Badly corroded. L. 119 mm, W. 39 mm, Dm. 5 mm (haft), Th. 2-1 mm (blade) Wt. 35.07 g. Type 5.*
Current Location: Bern, Historisches Museum, Inv. Nr. 14239.
Unpublished.



SU12. Bern, Engelhablinsel, Engemeistergut, Temple II (Author, Historisches Museum, Bern).

SU13. Brügg, Pfeidwald. (Author, Bern Historisches Museum).

SU14. Chasseron, Mont Bullet, Ste-Croix (Vaud) The first three axes were found on one of the summits of Jura (le Chasseron, elevation 1611 m) near the village of Bullet. The objects were supposedly found around an altar at the mountains summit. By 1855, landslides had destroyed much of the site and only a few tiles remained. The axes were purchased by the museum with other material in 1861. Other finds from the site included torques, two bronze lamps, four small bells, pottery and 104 coins. The coins range from Iron Age issues, including a Spanish coin, Republican issues of Marseilles and Vienne, up to at least the reign of Commodus. All the finds were considered to be ex-votos by the excavators. In new excavations by the University of Lausanne, conducted by T. Luginbühl in 2005, a fourth axe was found in a pit dated between A.D. 180 and 200.

i) Iron Allmendingen type model. Inscribed on the left cheek with a triangle. L. 87 mm. Type 5.

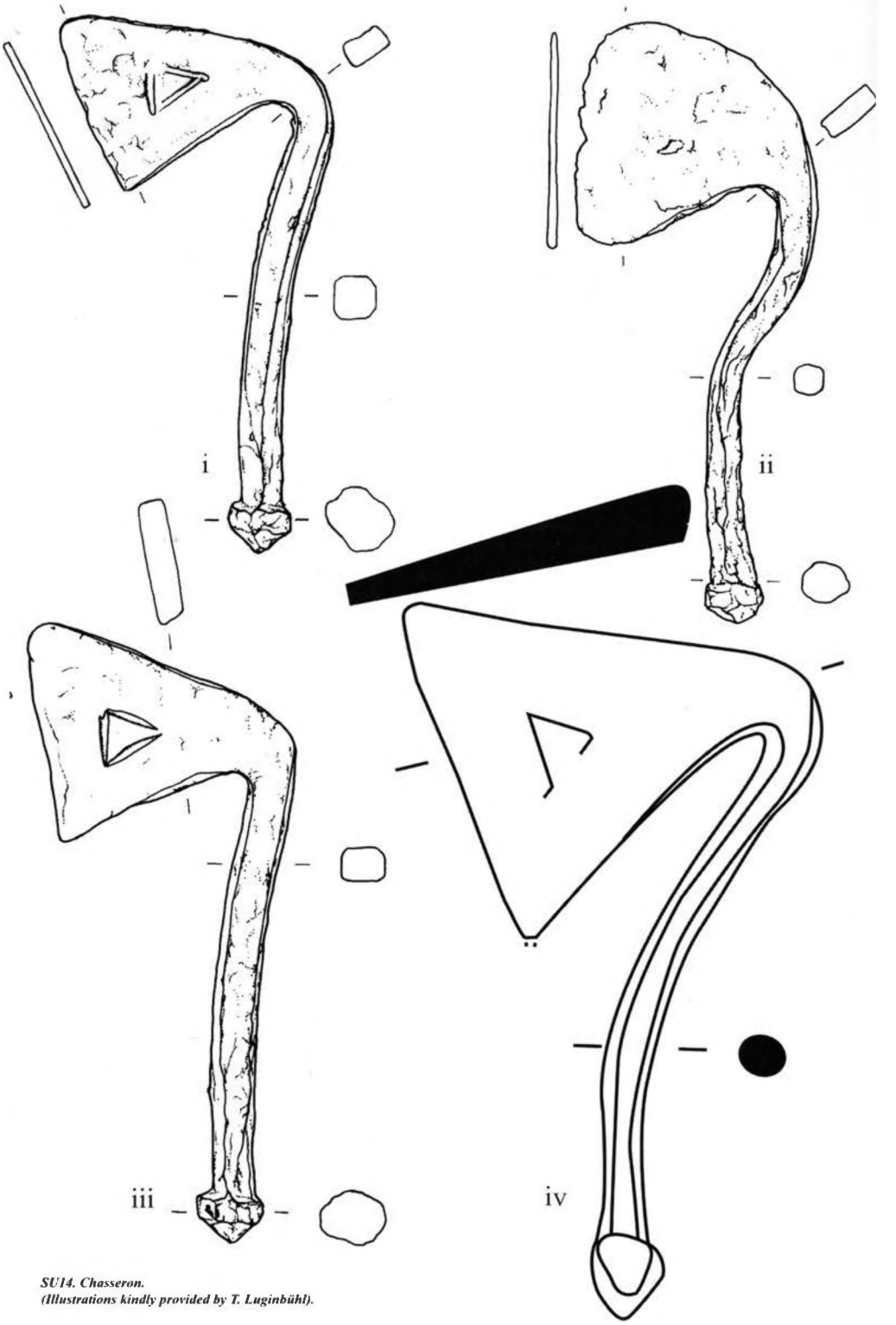
ii) Iron Allmendingen type model with rounded blade. L. 94 mm. Type 5.

iii) Iron Allmendingen type, the left cheek is incised with a triangle. L. 97 mm. Type 5.

iv) Iron Allmendingen type, L. 110 mm, W. 63 mm. Type 5.

Current Location: i-iii) Musée cantonale d'archéologie et d'histoire Lausanne, Inv. Nr. 1800-1803. iv) Find No. 167.24055.02.

Biblio.: Forrer 1948: 24-26, 72, 5.1-3, pl. 5.1-3, VI.1-3; de Bonstetten 1855: 55, pl. 13.6.



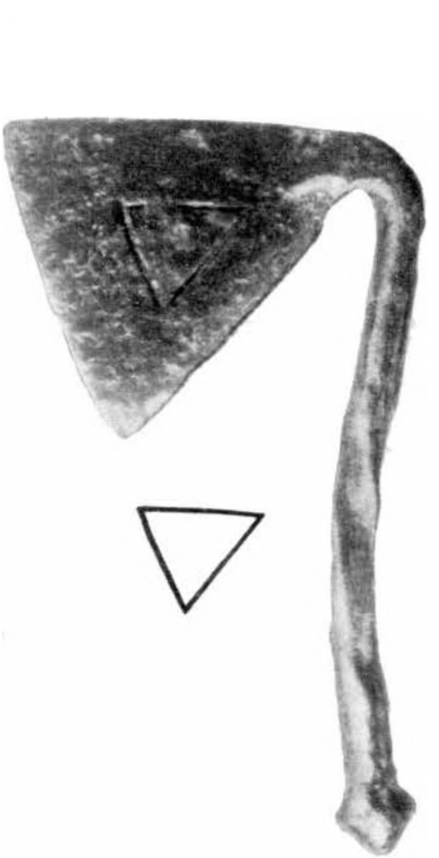
SU14. Chasseron.
(Illustrations kindly provided by T. Luginbühl).

SU15. Dietikon (Zürich): A villa situated on the Roman road between Baden and Zurich. Found in 1866, the exact findspot is unknown, but it is in an area situated just to the north of the main villa building. *Iron Allmendingertypus with twisted haft. A triangle is incised on the left cheek. L. 101 mm. Type 5.*
Current Location: Landesmuseum, Zürich Cat. Nr. AG 4612-1.
Biblio.: Forrer 1948: 34-5, 73, 6.1, pl. 9.1; Ebnöther 1995: 54 and 59, fig. 67.

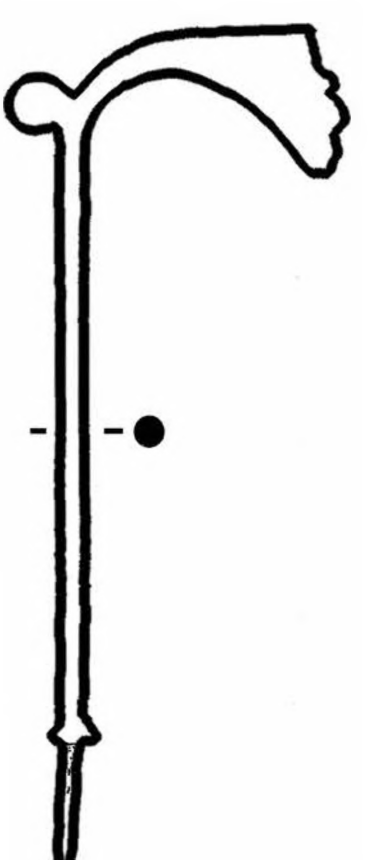
SU 16. Kleinandelfingen, Orelingen, Zürch. No further information about the findspot available. *An enormous Allmendingen shaped iron object. The blade ends in a collared spike, and an unusual circular extention appears behind the nape should be. L. 290 mm, W. 110 mm, Th. 7 mm (grip and back of blade), 2 mm (tip of blade) and 5 mm (spike). Attribute of a statue? Ceremonial object? Architectural decoration?*
Current Location: Schweizerische Landesmuseum, Zürich. Inv. Nr. 29691.
Unpublished.

SU17. Kloten-Aalbühl. A large Roman villa founded A.D. 50/60 and abandoned in the early fourth century. *An iron Allmendingen type axe. The haft terminates in a knob. Badly corrodded. L. 47 mm, W. 20 mm. Type 5.*
Biblio.: Drack 1992: A5.151-164.

SU18. La Tène (Marin, Neuchâtel) Probably one of the many finds from the bed of the Thièle. Vouga suggested that it is a votive axe. *Bronze axe-head with a round hole for the haft and no nape. In cross section the housing is rounded and the blade thin and wedge-shaped. The lower face curves downwards and the upper face is straight. The housing is bent around the shaft-hole. Forrer describes 'water' patina. W. 48 mm. Type 2A.*
Current Location: Musée Schwab, no inv. nr.
Biblio.: Forrer 1948: 40-41, 73, 10.1, pl. 10.5; Vouga 1923: 111, pl. 42, fig. 10.

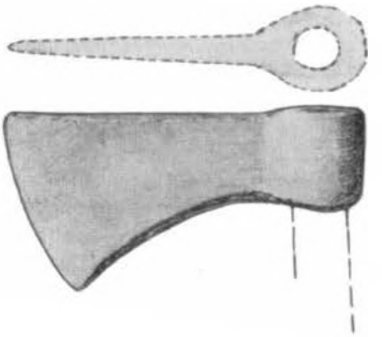


U15. Dietikon. (After Forrer 1948: pl. 9.1).



SU16. Kleinandelfingen, Orelingen, Zürch. Scale 1:2 (Author, Schweizerische Landesmuseum, Zürich).

SU17. Kloten-Aalbühl.
(After Drack 1992: Fig. 12.5).



SU18. La Tène.
(From Forrer 1948: Pl. 10.5).

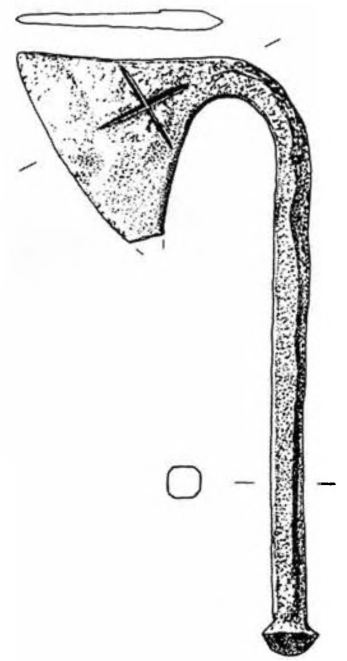
SU19. Martigny.
(From Wiblé 1983: fig. 11.2).

SU19. Martigny, (*Forum Claudii Vallensium*) Valais. Found in the Romano-Celtic sanctuary complex near the south-east entrance to the city, not far from the amphitheatre. Travellers coming from Grand St. Bernard would have passed it. The complex consists of a large rectangular *temenos* wall (83.8 x 135.2 m) fronted by a double porticoed entrance on the south side. The sanctuary contained rooms backing onto the *temenos* wall, a small building with a water-basin and a heated room, a single *fanum* and an altar. The site clearly was in use in the first century B.C. until the late fourth century A.D. *Bronze Allmendingen type with a sharply curved haft that terminates in a hemispherical knob at the base. A triangle is engraved on the left cheek. L. 78 mm, W. 38 mm. Type 5.*
Biblio.: Wiblé 1983: 57-67, fig. 11.2.

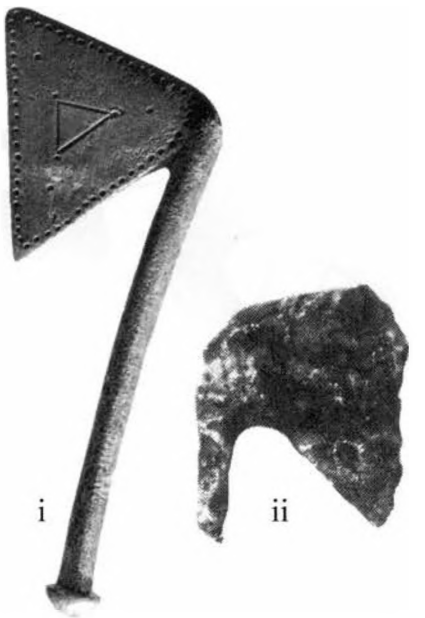
SU20. Meyriez/Merlachfeld, Fribourg. Found in the destruction level of this Romano-Celtic sanctuary which was excavated in 1996. The sanctuary seems to have been built in the first half of the first century A.D., and abandoned no later than about A.D. 200. *An iron Allmendingen type with a straight haft that is roughly square in cross section. The blade is relatively flat, and is engraved with an X on the left cheek. L. 120 mm. Type 5.*
Biblio.: Saby and Bugnon 1997: no. 78, fig. 24c.

SU21. Morens, Fribourg. Found near a modern church built over the ruins of a Roman building. The remains of a Roman wooden bridge over the ancient course of the Glâne, some inhumation burials, and perhaps some workshops were also found here. Cursory rescue exvavations in 1981 yielded large quantities of ceramic which suggest an occupation date between A.D. 50 and 250.
i) Found in the remains of the Roman bridge in 1921 *Bronze Allmendingen type. Blade left inscribed with central triangle with a pair of dots at each corner. The edges of the blade are lined with rows of dots. L. 81 mm, W. 28 mm. Type 5.*
ii) Found about 100 m from the church during the rescue excavations of 1981. *Iron Allmendingen type, badly corrodded and broken on the haft and end of the blade. L. 34 mm, W. 27 mm. Type 5.*
Biblio.: Schwab 1970/1: 8-11; *Archéologie Fribourgeoise* 1980-2.75, fig. 93. *s.v.* Morens (Broye) Derrière-la-Cure (B. Dubuis and E. Seewer).

SU22. Orbe, Vaud. An enormous villa site incorporating multiple buildings including a Mithraeum, and probably a sanctuary. The two models are said to have have been found in vicinity.
i-ii) Allmendingen type models in silver, decorated with triangles. Type 5.
Biblio.: Unpublished. Pers. Comm. Margrit Balmer, April 1st 2007. On the site see Drack and Fellmann 1988: 463-465.



SU20. Meyriez/Merlachfeld. (From Saby and Bugnon 1996: fig. 24c).



SU21. Morens. (From Schwab 1970/1).

SU23. Riaz, Tronche Bélon. *First excavated in 1852, the site was re-explored between 1974 to 1976. It is a* Romano-Celtic sanctuary site, consisting of a stone Roman construction (Flavian period) built over an older (pre-Claudian) wooden one. The temple was dedicated to Mars Caturix and his consort Victoria as evidenced by votive inscriptions. Other finds include *fibulae*, coins, and bronze statue fragments. The coins range from the end of first century B.C. to end of the third century A.D. The temple was probably destroyed by fire during the German incursions of the 260's. The first two axes are from the earlier structure, and were found in the destruction layer in roughly the same spot (excavator's context: Se 156/ C5 and 7): at the back of the new temple structure, in a porticoed gallery. Their exact position in the earlier wooden temple is uncertain, but was certainly in or very near the sanctuary building.

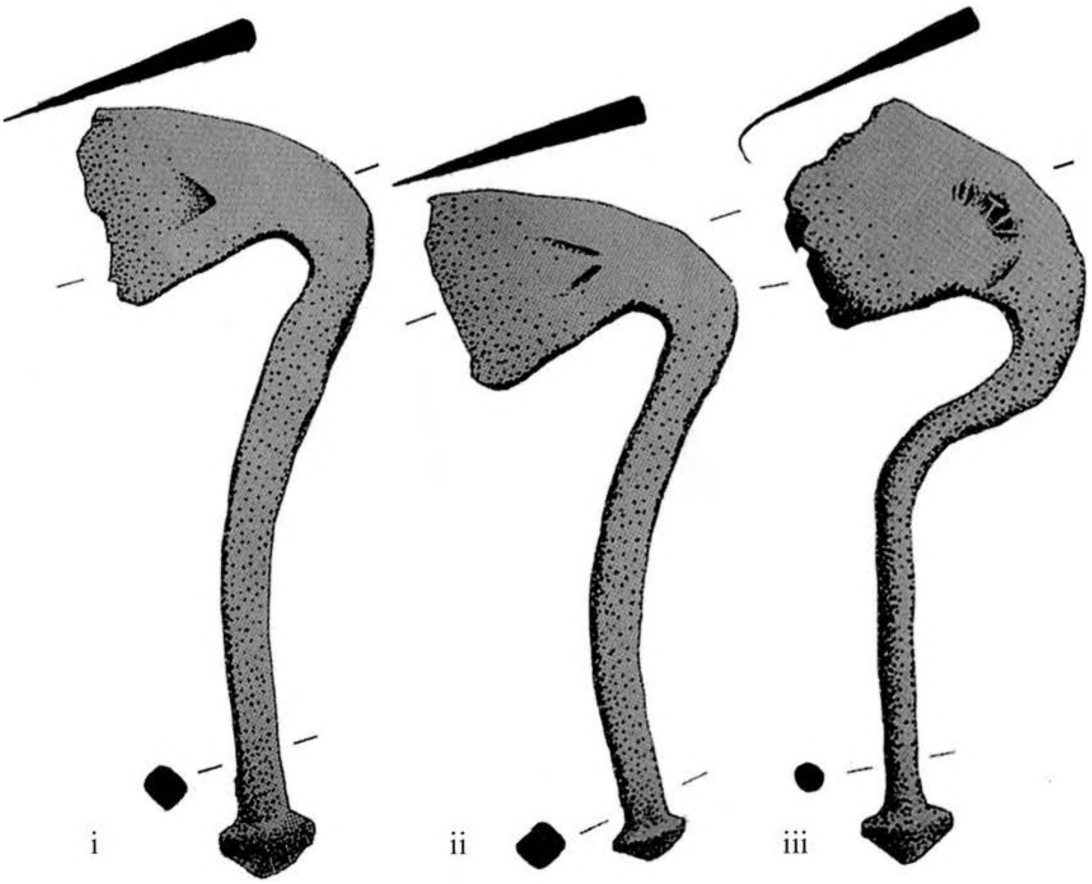
i) Iron Allmendingen type with a curved haft that is rectangular in cross section, and terminates in knob. The thin wedge-shaped blade is inscribed > on the left cheek. L. 103 mm, W. 29 mm. Type 5.

ii) Iron Allmendingen type with a curved haft that is rectangular in cross-section, and terminates in knob. The thin wedge-shaped blade is inscribed > on the left cheek. L. 88 mm, W. 26 mm. Type 5.

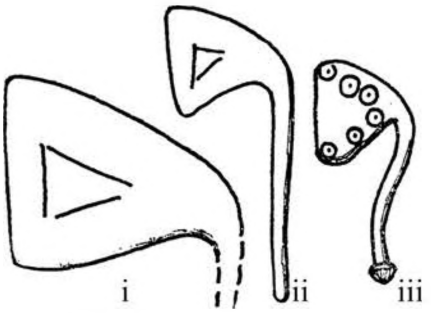
ii) Found about six metres from the outer wall of the stone sanctuary (context: Se 138). *Iron Allmendingen type axe with a round haft that is circular in cross section and terminates in a large knob. The haft curves very sharply backwards about two thirds of the way up from the base, and curves around to form the blade. The thin wedge-shaped blade is stamped with an inscription on the left cheek: MAR]TI]CA]TV[RIGI. The seemingly fanciful reconstruction is supported by stone inscriptions from the site. The blade is broken at the end, and slightly bent. L. 102 mm. Type 5.*

Current Location: Musée d'Art et d'Histoire, Fribourg. i) Inv. Nr. 76/101 ii) Inv. Nr. 76/102. iii) Inv. Nr. 76/175.
Biblio: Vauthey 1985: 27, nos. A1, A2 and 53, no. B197.

SU24. Saint-Cierges, Moudon,Vaud. A hilltop sanctuary, partially excavated fro, 1947 to 1956. The site includes and partially covers two tumuli which probably date to La Tène I or II. The axes were found in a square building, which was divided into two main chambers (fana?), in a depression containing coins of Antoninus Pius and Faustina, pipe-clay figurines, and terra sigillata. This depression was thought by the excavators to have been either a garbage pit or a resevoir of water. The first two strata, to which the pit seems to belong, date from the late first to early second centuries A.D. The latest material on the site is early third century A.D.

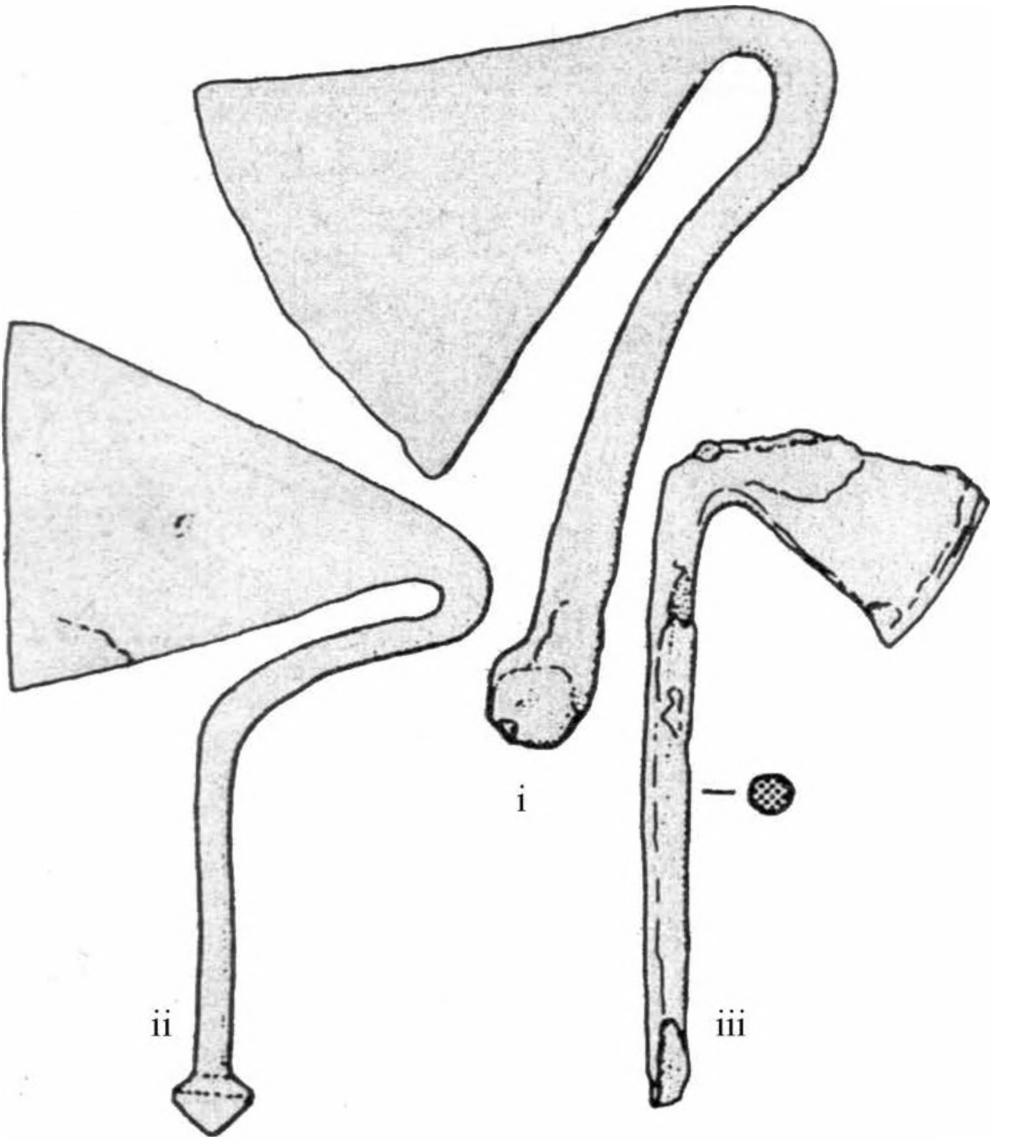


SU23. Riaz. (After Vauthey 1985: 27).



SU24. St. Cierges. (After Kasser, 1960/61: fig. 42).

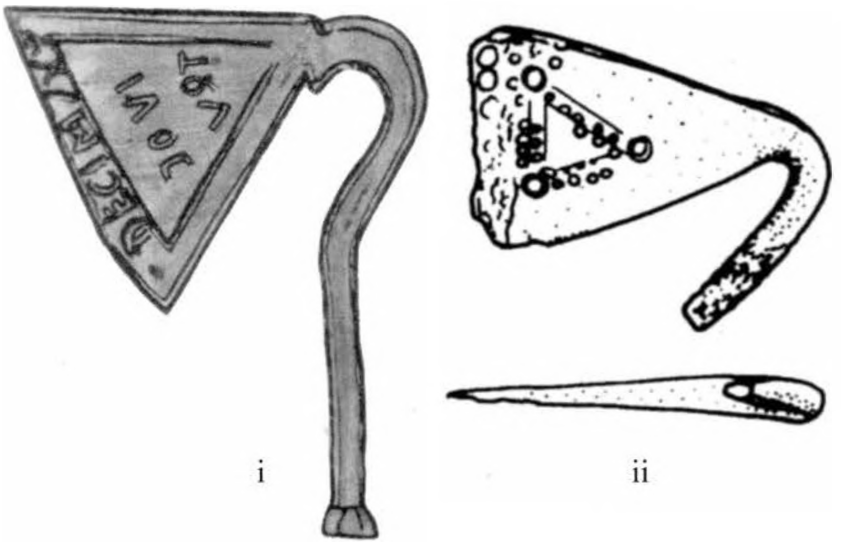
i) Iron Allmendingen type. Engraved on the left cheek with a triangle; on the right blade with three cirles and dots. Broken at the haft. L. 27 mm, W. 31 mm. Type 5.
ii) Bronze Allmendingen type. A triangle is engraved on the left cheek. L. 39 mm, W. 17 mm. Type 5.
iii) Bronze Allmendingen type. Six circle and dot motifs are engraved along along the upper and lower left faces. L. 30 mm, W. 13 mm. Type 5.
Current Location: Musée de Yverdon.
Biblio.: *Jahrbuch der Schweizerischen Gesellschaft für Urgeschichte* 48.169-174 (R. Kasser, 1960/61.)



SU26. Seeb, Winkel. (After Drack 1990: Pl. 65.455-457).

SU25. Saxon, Valais. Presumably an Allmendingen type. It is cited by Pic as a comparandum to the Stradonice i (see below). No information on the context of the find is available.
Current Location: In Zurich in 1909.
Biblio.: Forrer 1948: 21; Pic 1906: 84, note 154. No published illustrations.

SU26. Seeb, Winkel, Zürich. An enormous villa complex, it was probably built between A.D. 30 and 45, included several phases of renovations, and was finally abandoned shortly before A.D. 300.
i) Found in building B. Other finds included a terracotta mother goddess figurine. This building was constructed under Nero, and was probably abandoned shortly before A.D. 300. In the first half of the second century A.D. the building was refurbished with a pottery kiln and curing ovens being added. *An iron Allmendingen type with haft ending in a knob. The blade is very large, the upper and lower faces being almost as long as the haft. It is almost bent over double. L. 98 mm, W. 67 mm. Type 5.*
ii) Context as last. *An iron Allmendingen type with a haft that ends in a conical knob. The haft bends backwards almost to a right angle and then curves forwards to form a very large triangular blade. L. 107 mm, W. 62 mm. Type 5.*
iii) Found in the central manor building of the villa. *An iron Allmendingen type model axe. The round haft is broken at the base. The triangular blade droops downwards. L. 89 mm, W. 41 mm. Type 5.*
Biblio.: On the site: Drack and Fellmann 1988: 550-555; on the site and axes see Drack 1990: 47, 207 and 217, cat. nos. 455-457, Pl. 65.455-457.



SU27. Solothurn. (After Forrer 1948: pl. 4.1).

SU27. Solothurn, Solothurn (*Salodurum*). A Roman *vicus* occupied from the early first century A.D. to the end of the third. After a hiatus, a *castellum* was built here in the late fourth century and the site was occuppied from this point until modern times.
i) Found in 1842 during the construction of a new bridge over the Aere. *Bronze Allmendingen type with sharply curved haft and a knob at the base. The blade is inscribed with a triangle on the left cheek and the words DECIMIUS IOVI VOT. L. 72 mm. Type. ii)* Found during excavations of the modern 'Kino Elite.' The archaeological context is dated from the second to late third century or early fourth centuries A.D. *The broken head of a bronze Allmendingen type model axe. The remaining haft is thin, and sharply curved. The edges of the triangular blade are quite straight, and it is wedge-shaped in cross section. The left cheek is decorated with a triangle that is surrounded by three large circles at each point, and numerous smaller circles. Type 5. W. 47 mm.*
Current Location: i) Solothurn Museum, Cat. Nr. 1260.
Biblio.: On Solothurn see Drack and Fellmann 1988: 510-513. i) Forrer 1948: 17-18 and 73 (with older literature), 14.1, pl. 4.1; *CIL* 13.2.1 no. 5172. ii) Spycher and Schucany 1997: 143, pl. 59.634.

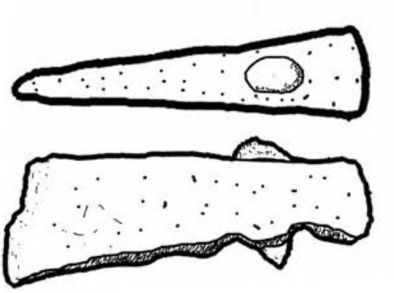
SU28. Studen, Petinesca (Nidau, Bern). All come from the Romano-Celtic temple on the Studenberg, the highest point of the settlement. Two were found prior to 1850 (i-ii) and a third in 1870, and two others were found in the excavations of 1937 (iv-v). A silver model axe was also reported here, but had been lost by 1948. The first two axes were interpreted as the tools of a veterinarian by Jahn (1850: 247).

i) Iron Allmendingen type with straight haft that terminates in a large knob. L. 120 mm. Type 5.
ii) Iron Allmendingen type axe with a large knob at the base of an haft that is roughly oval in cross section. The left cheek of the triangular blade has been engraved with a square containing an X. This does not show on Forrer's drawing, suggesting that it was revealed by later restoration. L. 105 mm, W. 35 mm, Wt. 11.00 g. Type 5.
iii) Iron Allmendingen type fragment. Engraved on the left cheek: >. Broken at the haft. W. 60 mm. Type 5.
iv) Allmendingen type axe model. Metal unknown. The curved haft terminates in a knob, and is inscribed with a triangle on the left cheek. L. 70 mm, W. 35 mm. Type 5.
v) Allmendingen type axe model. Metal unknown. The slightly curved haft terminates in a small knob. L. 56 mm. W. 20 mm. Type 5.
vi) Silver model axe. Allmendingen type?
Current Location: i) Bern, Historisches Museum, Cat. Nr. 14,31. ii) Bern, Historisches Museum, Cat. Nr. 14,201. iii) Bern, Historisches Museum, Cat. Nr. 14,317. iv-v) Biel, Museum Schwab, Cat. Nr. 37 and 45. vi) Forrer suggests it was kept by Herr Schmid of Diessbach.
Biblio.: On the site. Drack and Fellmann 1988: 522-523; i-v) Forrer 1948: 74, nos. 15.1-5, pl. 8.6-10. i-ii) Jahn 1850: 47 (no illustrations); iii) Amiet 1872: 378 fig. 2. iv-v) no published illustrations or descriptions apart from those of Forrer; vi) Forrer 1948: 32.

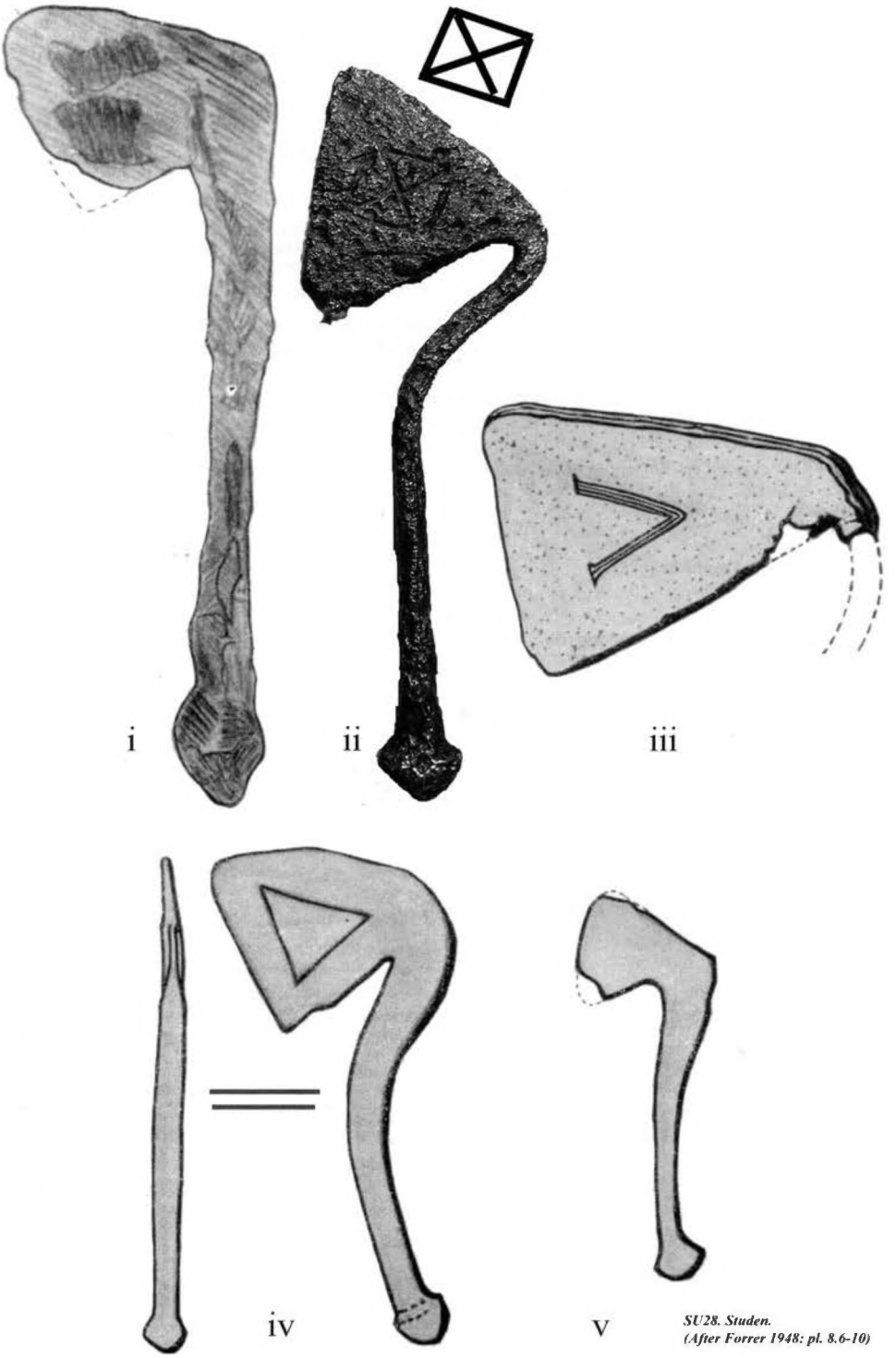
SU29. Windisch, Brugg, Aargau (*Vindonissa*): Three model axes have been found in this important site, which began as an oppidum in the first century B.C. and was occupied throughout the entire Roman period. Two have no proper contexts.
i) Found in 1908 during excavations conducted by Dätwiler. *A complete bronze axe model with a plane round haft. The nape forms as flat horizontal cutting edge, like a dolium. L. 65 mm.*
ii) Found in 1911 on a rubbish heap. *Almost a flag-shaped iron axe. The lower face is convex, and forms a small beard with the straight bit. The upper face is straight, rising slightly. There is no nape. The haft is broken near the base. L. 54 mm. Type 3B.*
Current Location: i-ii) Vindonissa Museum, Cat. Nr. 3592 and 6992; iii) Vindonissa Museum, missing.
Biblio.: Forrer 1948: 41-42, 74, no. 17.1-3, pls. 11.1-2 and 9.5.

SU30. Windisch, Amphitheatre, Brugg, Aargau (*Vindonissa*). From the Amphitheatre. *Miniature axehead in bronze. The remains of a round iron haft protrude above and below the blade. The upper face is straight, and the lower face curves downwards slightly. Wedge-shaped in cross section. The bit and lower casing are damaged. L. 46 mm, Th. 10.5 mm (nape) to 2 mm (bit), Wt. 22.63 g. Type 2.*
Current Location: Schweizerische Landesmuseum, Zürich, Inv. Nr. A 35465.

SU29. Windisch.
(After Forrer 1948: Pl. 9 and 11).



SU30. Windisch.
(Author, Schweizerische Landesmusem Zürich).



SU28. Studen.
(After Forrer 1948: pl. 8.6-10)

SU31. Winterthur, (Vitudurum) Zürich. A Roman *vicus*, founded as a staging post here after 15 B.C. which included a large Romano-Celtic style temple. The *vicus* was largely destroyed in the late third century A.D. The first six axes were found in a hoard of bronze objects unearthed in 1709 on the 'Lindberg' a few hundred metres away from a large Romano-Celtic temple. The objects in the hoard finds included two bronze Mercury statuettes and bronze animal figurines: a bull, a board, a horse, a dog and a bear, and 18 bronze sticks, possibly for use as lot oracles. The exact contains of the hoard, and the circumstances of its recovery are not entirely clear. It has been suggested that the hoard was buried in the third century A.D., having been removed from the nearby Romano-Celtic temple for safe keeping.

i) Bronze axe with rectangular blade incised with a < on the left cheek. The upper face is concave, and the lower face convex. The bit is straight, and there is no nape. The haft terminates in a ring. L. 45 mm.

ii) Bronze axe with rectangular blade, incised with a triangle on the left cheek. The upper face is concave, and the lower face convex. The bit is straight, and there is no nape. The haft terminates in a ring. L. 45 mm.

iii) Bronze axe with rectangular blade, incised with a triangle on the left cheek. The upper face is concave, and the lower face convex. The bit is straight, and there is no nape. The haft terminates in a ring. L. 47 mm.

iv) Bronze Allmendingen type axe, with a line marking the transition between the blade and the haft. A triangle is inscribed on the left cheek and a square on the upper part of the haft. L. 50 mm. Type 5.

v) Bronze Allmendingen type axe, with a line marking the transition between the blade and the haft. A square is inscribed on the left cheek and on the upper part of the haft. L. 50 mm. Type 5.

vi) Bronze Allmendingen type axe, with a line marking the transition between the blade and the haft. A triangle is inscribed on the left cheek and a square on the upper part of the haft. L. 50 mm. Type 5

Two further axes were found in later excavations of Roman houses in the area known as 'Unteren Bühl.' To the north-east of the Romano-Celtic temple. The buildings here include some of the earliest constructions on the site, dated by dendrochronology to 7 B.C.

vii) An iron Allmendingen type model axe. The oval haft is sharply curved, and seems to end in an enlarged round knob. The broad triangular blade emerges significantly thinner from the haft, and is wedge-shaped in cross section. The left cheek of the blade has been engraved with a triangle. Badly corroded. L. 79 mm, W. 34 mm. Type 5.

viii) A miniature iron axe head with a roughly circular eye. The nape is large and rectangular, and the axe narrows quickly to a point. The upper and lower faces consist of two smooth and roughly parrallel convex lines, joined by a rounded bit. L. 51 mm. Type 2.

Current Location: i) Landesmuseum Zürich Cat. Nr. AG 4612-3. ii) Winterthur Stadtbibliothek. iii) Winterthur Stadtbibliothek. iv) Landesmuseum, Zürich, Cat. Nr. AG 4612-1. v) Winterthur Stadtbibliothek. vi) Winterthur Stadtbibliothek. vii-viii) unknown.

Biblio.: On Winterthur/Vitudurum in general see Drack and Fellmann 1988: 556-561.

i-vi) Kellner 1864: 119-120 (81-82) and 63ff., pl. 5.13, 14, 15, 16, 17, 18; Forrer 1948: 6-13, 73 (with older bibliography) nos. 11.1-6, pl. 1.13-18, 2.13-18; vii) Schaltenbrand, Obrecht. et al. 1996: 147, no. E5, fig. 122, pl. 37.5; viii) Schaltenbrand, Obrecht et al. 1996: 145-146, no. E4, fig. 122, pl. 37.4

SU32. Yverdon, Vaud (*Eburodunum*). Found in 1921 in mouth of the Thièle river on the Neuenburger lake, near a Roman camp (*Eburodunum*). A Republican denarius (88B.C.) was found nearby. *Bronze Allmendingen type. The haft is straight and terminates in an ornate knob. Two ridges mark the end of the haft and the beginning of the flat symmetrican and triangular blade. The left cheek of the blade is inscribed with a triangle, which is inlayed with silver. L. 85 mm. Type 5.*

Current Location: Yverdon Musée d'Art, Cat. Nr. 4504.

Biblio.: Forrer 1948: 74, 18.1, pl. 3.7.

SU33. Yvonand (Yverdon, Vaud): A large villa complex which includes a Romano-celtic style temple. The axe was found prior to 1894. *A bronze Allmendingen type model axe. The lower part of the haft is round, and terminates in a hemispherical knob. About halfway up, the haft becomes flat then curves around at a right angle to form the triangular haft. The left side of the blade is incised with two triangles and three circles, as well as a series of short lines. The latter extend down the upper flat part of the haft in two parallel lines. L. 131 mm. Type 5.*

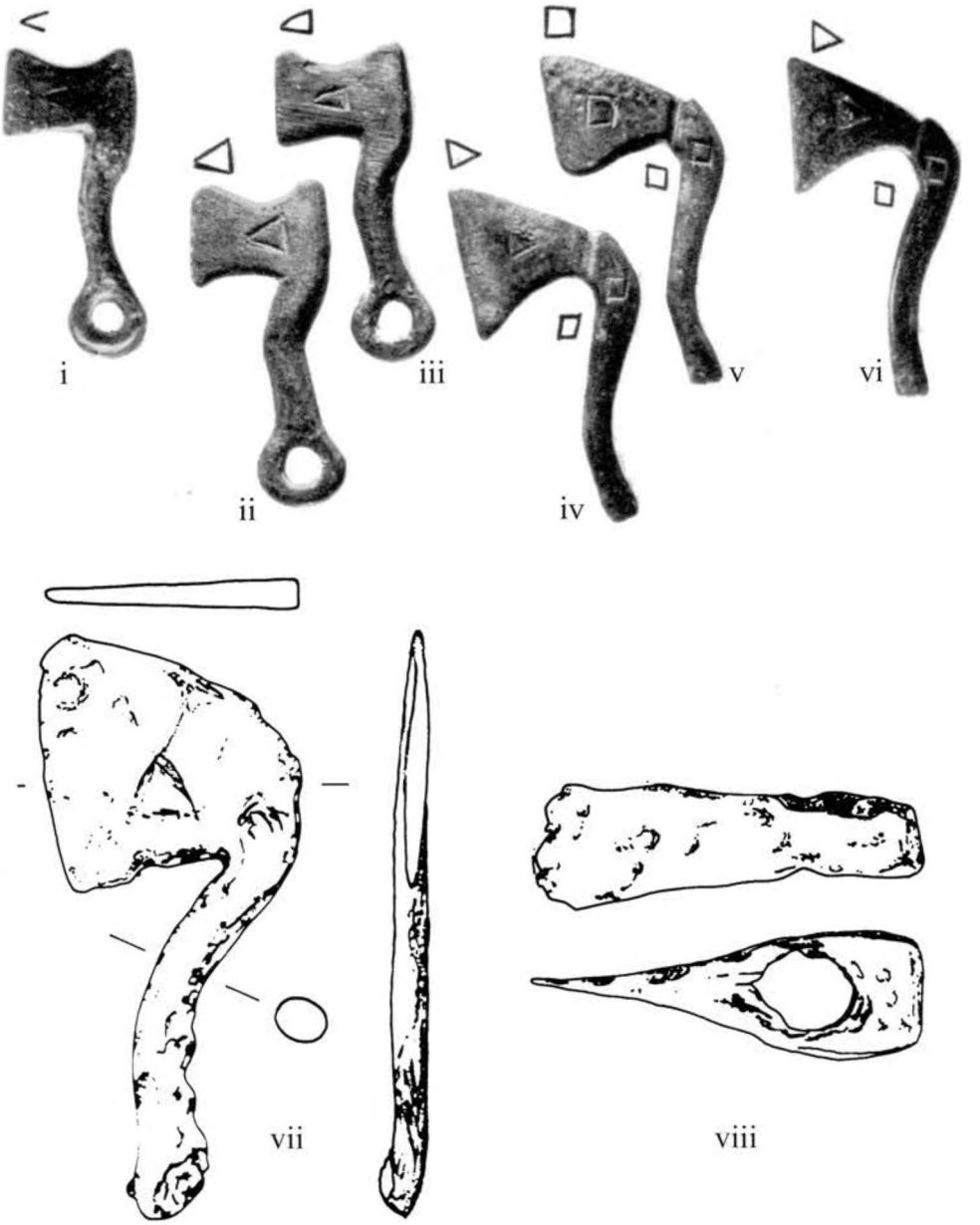
Current Location: Musée cantonale d'archéologie et d'histoire, Lausanne, Inv. Nr. 00098.

Biblio.: Forrer 1948: 26 74, no. 19.1, pl. 5.5, 6.5A.

SU34. Zürich, (*Turicum*). Found in 1881 in the Limmat near the Gemüsebrücke by construction workers. It is possible that it came from a Romano-Celtic temple situated nearby. Purchased by the collector J. Rubli from one of the workers and later acquired by the museum. The construction yielded the pillar of an earlier Roman bridge. *A bronze Allmendingen type with a straight haft and a circular knob at the base. The entire model seems to be flat. The left cheek is inscribed with an X. L. 65 mm. Type 5.*

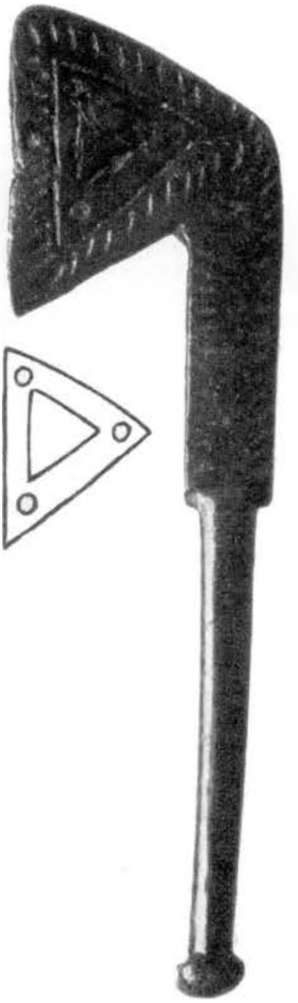
Current Location: Landesmuseum, Zürich A 12202.

Biblio.: Forrer 1948: 36-37, 74, no. 20.1, pl. 9.4. Information on the temple from M. Balmer.



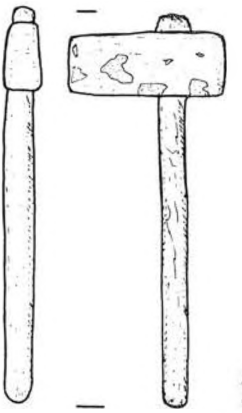
SU31. Winterthur.
(i-vi: after Forrer 1948: pl. II;
vii-viii: after Schaltenbrand Obrecht et al. 1996: pl. 37.4-5).

SU32. Yverdon.
(After Forrer 1948: pl. 3.7).



SU33. Yvonand.
(After Forrer 1948: pl. 5).

SU35. Zürich.
(After Forrer 1948: pl. 9.4).



BE2. Clavier Vervoz.
(After Bodson 1983/4: fig. 11).

Belgium (BE)

BE1. Blicquy, Hainaut. A Romano-Celtic sanctuary comples. See **3.4.2. fig. 6.5.** *An iron axe head model. L. 77 mm, Wt. 47.5 g. Type 2.*

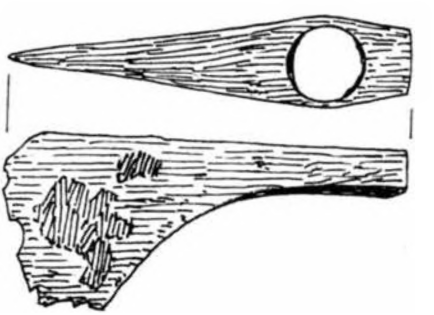
BE2. Clavier-Vervoz (Wallonie). A *vicus* lying on the road between Tongres and Arlon. Found during excavations of this Roman *vicus*. It includes a few houses, baths, a Romano-Celtic temple, a *mansio*, and what has been interpreted as a covered market where the miniature axe was found in the 1968 excavations. The earliest finds date to the early first century A.D., and the site seems to have been abandoned between A.D. 250 and 270. *Flag-shaped axe with straight round haft. L. 53 mm, W. 21 mm. Described as a 'petit marteau', but clearly an axe. Type 1C.*
Biblio.:Bodson 1983/4: no. 138, fig. 11.138, pl. 9.7. For a summary of the site see Willems and Lauwerijs 1973.

List of Select Axe Models from Outside the Study Area

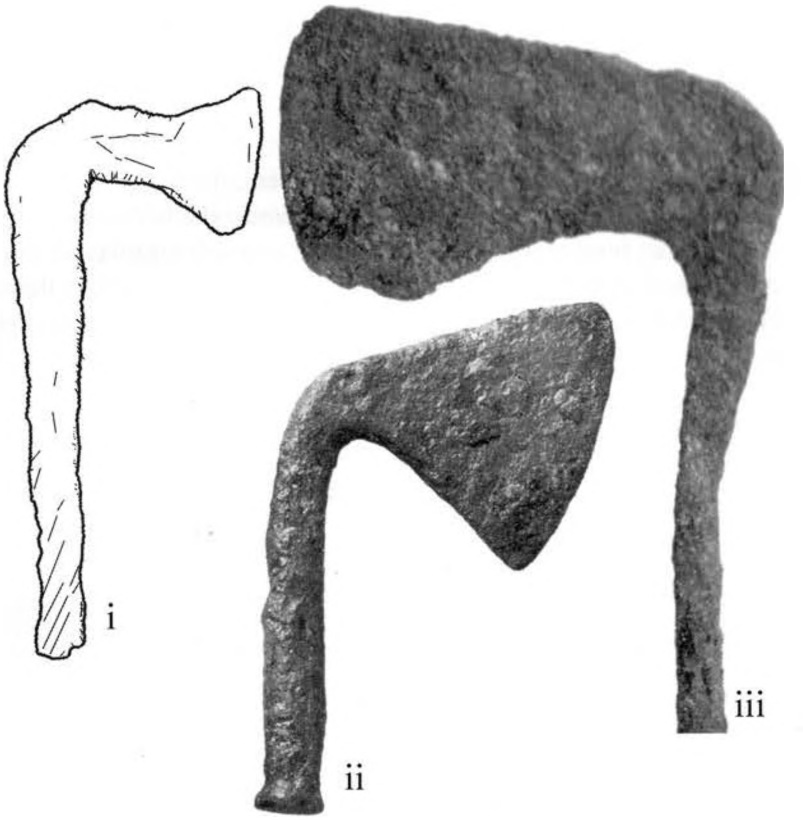
Enzersfeld, Niederöstereich, Austria. Found on the surface in 2002 along with numerous other Roman period objects. *A miniature iron axe head with a round eye. The lower face curves sharply downwards, and forms large beard. The upper face is flat and slopes gradually upwards. L. 52 mm.*
Current Location: Andreas and Veronika Karl, Enzerfeld.
Biblio.: *Fundberichte aus Österreich* 41.650-651, fig. 517.

Stradonice (Nižbor), Czech Republic. A Celtic oppidum of the Boii, it was probably founded around 150 B.C., fortified in 120 B.C., and burned during Germanic incursions in 15 or 9 B.C. The site was badly plundered by antiquities hunters in the late 19th century, and the numerous finds dispersed amongst various European museums.
i) Described as an element of suspension for a cauldron by Pic, but without any detailed description. *An Iron Allmendingen type model axe (?) The haft is straight, and flares out slightly into a flat base. The upper and lower face emerge from the top of the haft, and form a broad triangular blade with a slightly rounded type. L. 67 mm, W. 42 mm. Type 5.*
ii) Described as an amulet by Drda and Rybová, but no information on the findspot exact spot seems to be available. The photo is rather, poor, and the illustration drawn from it may not be entirely reliable. *An iron Allmendingen type with a twisted haft at the base. The upper and lower face curve away from one another symmetrically. The bit is curved. The back part of the haft seems to include a folded V like section, as if indicating the two lugs or wings of an Iron Age socketed axe. Size unknown. Type 5.*
iii) Included in the main publication of the site by Pic in 1903, but without a specific findspot. He compared it to other finds from Swizterland. *An iron Allmendingen type (?) axe. The haft is round, and may be broken at the base. The convex lower face is broken towards the heel, and the upper face is straight. The bit is slightly curved. L. 100 mm, W. 65 mm. Type 5.*
Current Location: i) Unknown ii) In Vienna in 1906 iii) Archaeological Insitute, Prague.
Biblio.: i-ii) Pic 1906: 83-84, pls. 25.25, 87, and 40.2; Forrer 1948: 76, pl. 13.3-4; iii) Drda and Rybová 1995: 152.

Hrzany, Czech Republic. An oppidum site, founded in the mid second century B.C., it seems to have been abandoned in the second half of the first century B.C. Illustrated in a rather poor photo by Drda and Rybová, with no specific findspot or context given. *A complete iron model axe. The haft is curved, and terminates in a large horizontally positioned ring at the base. The triangular blade emerges from the haft, and has a curved bit and lower face. Quite possibly a pendant rather than a votive model. Size unknown. Type 5?*
Current Location: Archaeological Insitute, Prague.
Biblio.: Drda and Rybová 1995: 152 with illustration.



Enzersfeld.
(From Fundberichte aus Österreich 41 fig 517).



Stradonice. The scale of ii-ii are 1:1, but the scale of iii is unknown.
(i-ii: From Pic 1906: Pl. 25.25 and 40.2; iii: Author, drawn from Drda and Rbová 1995: 184).

ADDENDUM

As is to be expected in any undertaking of this sort, a number of important and recent finds came to the author's attention too late to be included in the finalised text. These are listed and briefly discussed here.

10.1. Rothwell Top, Lincolnshire, U.K.

Shortly before this book was put in its final form, the author was contacted by Adam Daubney of the Portable Antiquities Scheme, who had recently recorded a series of miniature bronze weapons, a miniature axe and a miniature socketed axe found at Rothwell Top in Lincolnshire.[1] This site had already been the subject of sporadic excavations and a magnetometry survey, but has not yet been published. The features identified are said to include rock-cut ditches, building foundations, and two Romano-Celtic style temples, with the finds including numerous Iron Age coins and three statuettes of Mars.[2] The group of miniatures reported were found by a metal detectorist and include at least 12 miniature shields, four miniature

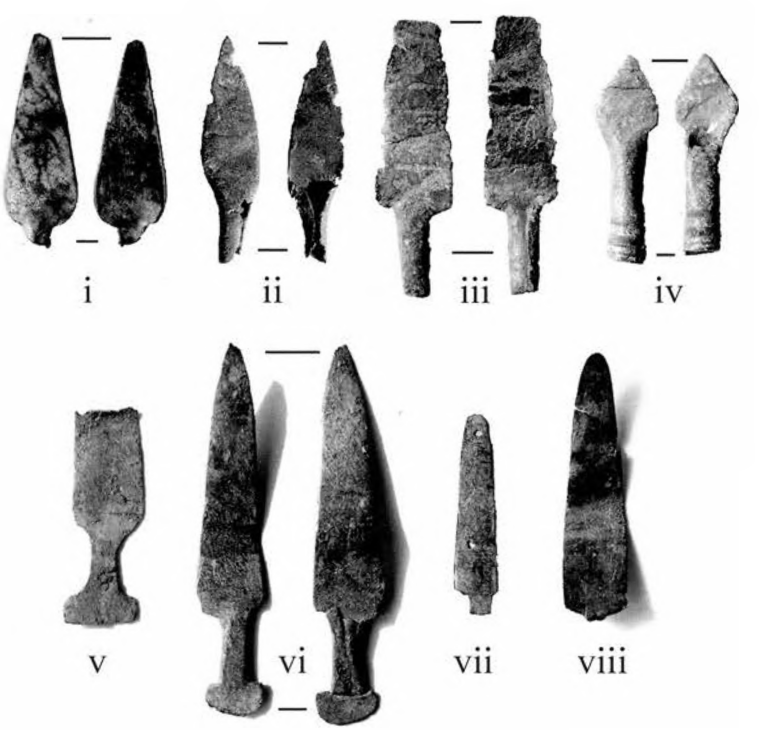


Fig. 10. 1. Miniature spear heads and swords from Rothwell Top. Bronze, 1:1. (PAS nos. LIN-AEB385, LIN-AE8460, LIN-B052A0, LIN-AE62A0, LIN-B040A2, LIN-B08E07, LIN-B0BAF5, LIN-B0B247).

1 Information in this section was kindly provided by Adam Daubney, the PAS Finds Liason officer who recorded the objects. I am also indebted to Raph Jackson for first mentioning the site.
2 Adam Daubney, pers. comm., July 2007.

swords, and five miniature spearheads. All are in bronze and share a similar smooth green-brown patina. Many had been intentionally bent or broken in antiquity.

The five spearheads (**fig. 10.1.i-iv**) include four of a very similar design to the miniature iron examples found at Baâlons-Bouvellmont and other sites (cp. **fig. 3.30**). They range from 27 to 37 mm in their preserved lengths.[3] The socket below their leaf-shaped blades was formed by folding back two sides of a bronze sheet, giving the same two dimensional appearance found on the Baâlons-Bouvellmont models. The sockets of four of the Rothwell Top spearheads (*e.g.* **fig. 10.1.i-iii**), however, are significantly longer, ruling out the possibility that they represent plough-shares. A fifth example has a socket that is slightly longer than the actual blade, which is triangular rather than leaf-shaped (**fig. 10.1.iv**). Two lines are also engraved at the tip and the base of this specimen. Adam Daubney also noted the number VIIII engraved on the blade of one of the spearheads (**fig. 10.1.iii**), which he tentatively interprets as a reference to the ninth legion. This reading is impossible to confirm from photo alone, though the initial V and bars next to it seem quite clear. The possibility that the lines represent elements of a scabbard rather than an inscription should perhaps also be considered.

The four swords are all flat pieces of bronze, with the only complete example (**fig. 10.1.vi**) measuring almost 50 mm in length. The tip of the complete example is pointed, in contrast to the other two surviving types, which are rounded, recalling a *spatha*. The grip and pommel of two specimens (**fig. 10.1.v-vi**) have been formed by clipping and folding back the otherwise simple strips of bronze metal. The two pommels are both flattened oval shapes, but there is no way of identifying these miniature swords as distinctly Celtic or Roman. In this respect the sword models are again comparable to those found at Mouzon.

The more numerous miniature shields from Rothwell Top (**figs. 10.2-3**) show significant variation in pattern and form. At least 13 examples have been found, though nine further scraps of metal from the site may have been miniature shields, and are described as such in the Portable Antiquities Scheme database (*e.g.* **fig. 10.2.xiv-xv**).[4] Given their association with other shield models, some of which seem to have been intentionally mutilated, this interpretation seems quite plausible. The more complete examples range in length from 35 to 70 mm, though at least one fragmentary specimen was undoubtedly even larger when complete (**fig. 10.2.iv**). Oval as well as smooth and angular hexagonal shapes are

3 PAS nos. LIN-AE4F67 (no image available, but with wood in the socket). LIN-AEB385, LIN-AE8460, LIN-B052A0 (with inscription) and LIN-AE62A0. A possible sixth miniature spearhead or complete model spear has also been identified. (PAS no. LIN-B0C7E7) but is too fragmentary for the attribution to be certain.

4 The definite shield models are: PAS nos. LIN-ADC107; LIN-ADA9D0; LIN-ADA9D0; LIN-AD7464; LIN-9E0D82; LIN-9D9C43; LIN-9D7155; LIN-9D5032' LIN-9D0633; LIN-9CF8E1; LIN-9CEA47 ;LIN-9CC832, LIN-9EB271. The possible shield models are: PAS nos. LIN-ADDBE4; LIN-AD9F17; LIN-9DE863; LIN-AE15A6 ; LIN-9E9943; LIN-9E81E4; LIN-9E6944; LIN-9E3CA4; LIN-9DAE32.

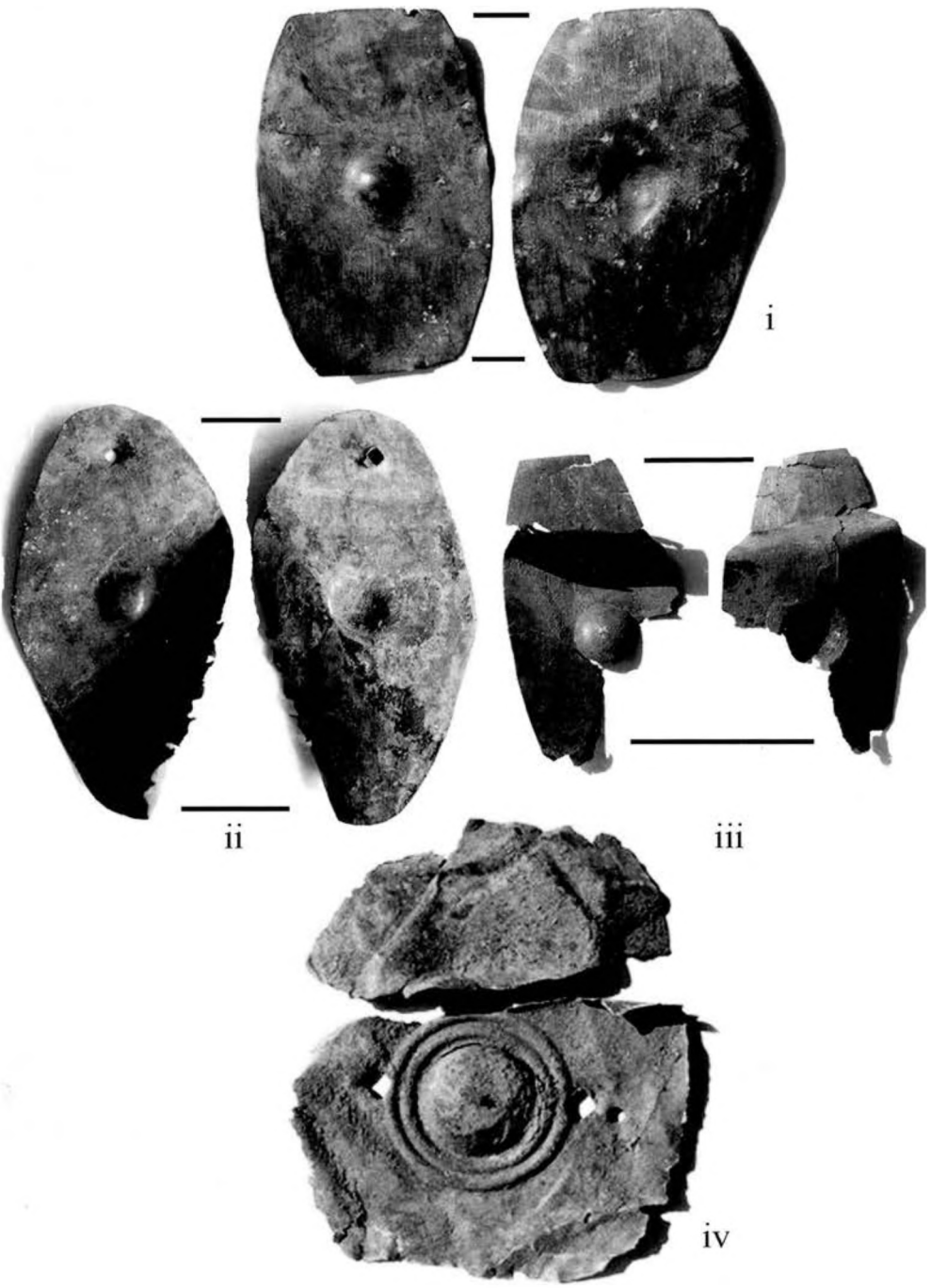


Fig. 10.2. Miniature shields from Rothwell Top. All bronze and 1:1. (PAS nos. LIN- 9CC832, LIN-9EOD82; LIN-9CEA47; LIN-ADC107).

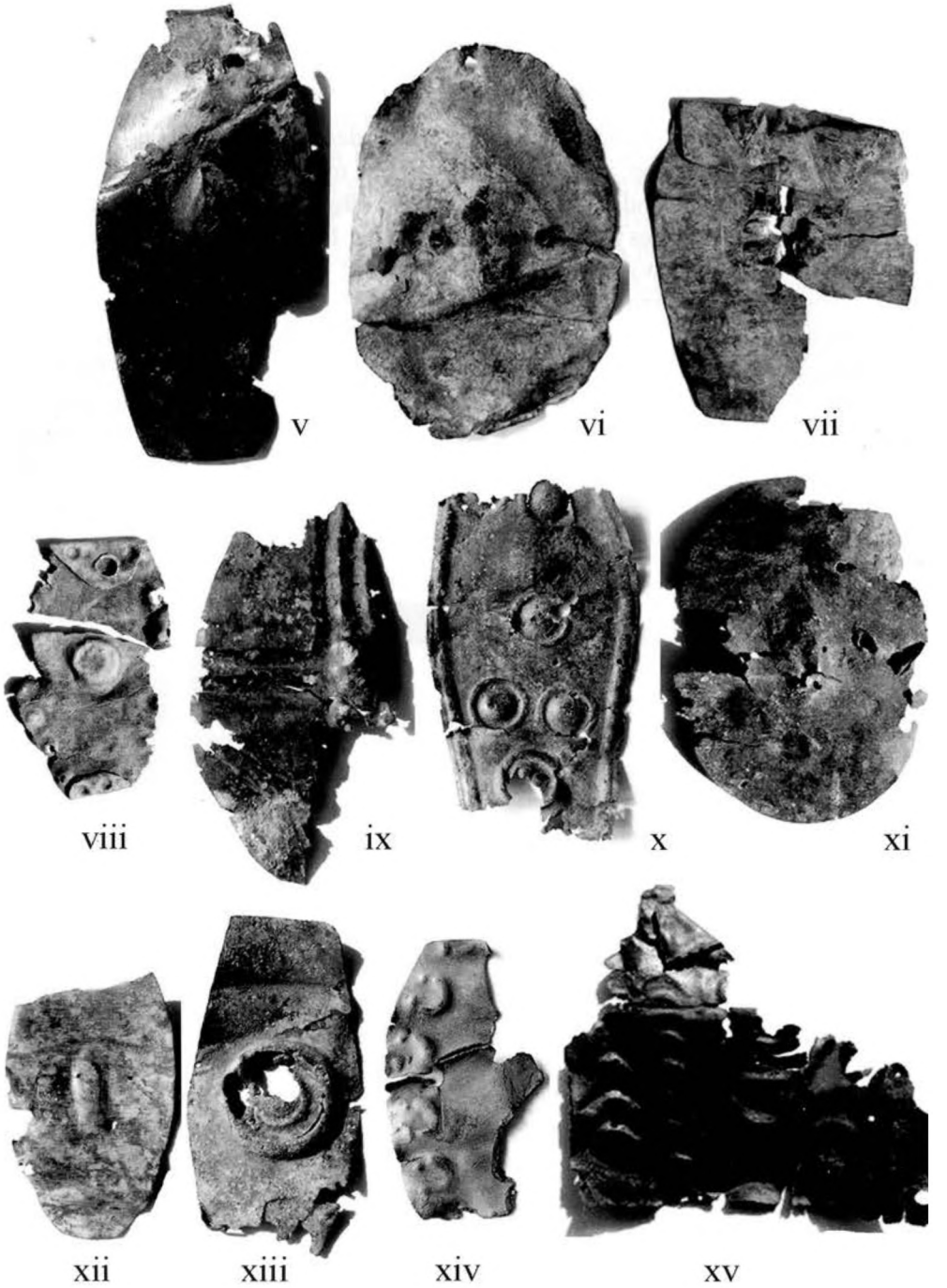


Fig. 10.3. Miniature Shields from Rothwell Top. All Bronze and 1:1. (PAS nos. LIN-9CF8E1; LIN-9D9C43; LIN-9DO633; LIN-9D7155; LIN-ADA9DO; LIN-9EB271; LIN-9D9C43; LIN-AD7464; LIN-9D5032; LIN-9DE683; LIN-AE15A6).

present. The variety of both shape and forms is again reminiscent of the hoard of miniature shields from Mouzon (**3.3.4**), and recalls Iron Age rather than Roman military equipment.

Unlike the Mouzon shields, however, surface decoration is common on the shields from Rothwell Top, including both stamped motifs (**figs. 10.3.viii, 10.3.x, 10.3.xiv, and 10.3.xv**) and larger raised patterns (**figs. 10.3.iv and 10.3.ix**) The stamped decoration ranges from random circles (**fig. 10.3.x**) to crescent moon and dot patterns (**fig. 10.3.xiv**) reminiscent of the sort of Celtic patterning incised on the Salisbury, Alcester and Barmouth models (**3.2, 3.5, figs. 3.16-17**). The raised decoration recalls that of the Worth miniature shields (**fig. 3.11**). Both oval and egg-shaped bosses are present, and one shield has a thickened border (**fig. 10.3.x**), while another has a pattern of rivets along its edge (**fig. 10.3.viii**). In one or two cases (**figs. 10.2.iv, 3.vi**) parallel holes on either side of the shield boss must have corresponded to a riveted handle, though many of the shields are plain. At least three have been crudely holed at the top (**fig. 10.2.ii; 10.3.vi-vii**), suggesting attachment to a flat surface by nailing, subsequent display and removal.

In addition to the miniature shields and weapons, two model axes were found by the same detectorist at Rothwell Top. The first is a miniature socketed axe (**fig. 10.4.ii**, L. 22 mm) of the type discussed in chapter 4 (**4.3**). These models were likely worn pendants, and have recently been redated to the late Iron Age or early Roman period.

Fig. 10.4. Model Axes from Rothwell Top. Bronze, 1:1. (PAS nos. LIN-B14EE4; LIN-B1B742).

The complete miniature axe (**fig. 10.4.i**) is 35 mm long, with a blade width of 18 mm. The haft terminates in a round knob, and protrudes from the top of the axe at a slightly disjointed angle, as observed on a number of other axe models. The blade itself is slightly bent. In the classification system of miniature axes proposed in this study (**4.6**), the Rothwell Top specimen is type 3A, a variety that is exclusive to Roman Britain.

On the whole, the finds from Rothwell Top are remarkably similar to the finds from Mouzon, except that the weapon models are composed of bronze rather than iron. Both sites show evidence for mass deposition and ritual destruction, suggesting a similar substitution for the Iron Age style deposition of war booty at Rothwell Top. In spite of the possible Latin inscription on one of the spearheads, the variation of the weapon models seems to suggest that Iron Age military equipment is being represented. The complete miniature axe is undoubtedly votive in nature as well, though it should probably be considered as a separate phenomenon to the military equipment.

10.2. Miniature Axes from Chartres, Eure-et-Loire.

At the conference 'Le Cheval et la Danseuse' held in the Musée des Beaux Arts d'Orléans in July 2007, Dominique Canny presented finds from the 2005-2006 emergency excavations of a Romano-Celtic temple located within the modern and ancient city of Chartres (*Autricum,* Eure-et-Loire). The sanctuary seems to have been founded between 75 and 50 B.C., with activity continuing until 225-250, when the site was destroyed by fire. In the cella below a destruction level datable to the end of the second or early third centuries A.D., the excavators found a group of five Neolithic axes, one Bronze Age axe and a complete miniature axe of the type discussed in chapter 4. The miniature axe is a flag-shaped type (type 1, in this work's proposed classification system) with a cylindrical haft and wedge-shaped blade. A thickened collar appears towards the bottom of the haft, which terminates in a rounded base. The model is 42 mm long, with a blade width of 21 mm.[5]

The finds from the sanctuary at Chartres are of particular importance as they provide a rare *in situ* context for a miniature axe. It is more significant still that the miniature axe was found directly together with a collection of prehistoric axes. The presence of prehistoric axes in sanctuaries yielding Roman period bronze miniature axes has already been noted (**4.12.2**). The discoveries at Chartres represent the latest and strongest link between the practice of dedicating miniature axe and the deposition of prehistoric antiquities in the Roman period.

5 I am indebted to Dominique Canny for allowing me a glimpse into her unfinished manuscript on the topic of these finds. The miniature axe has been assigned the find no. C190-4370-1. A publication of the find is in preparation.

ABBREVIATIONS

References to ancient authors follow the abbreviations of the *Oxford Classical Dictionary*, 3rd edition, edited by S. Hornblower and A. Spawforth. Oxford: Oxford University Press 1996. The bibliography follows the format of the Archaeological Institute of America, though journal titles have been intentionally left unabridged.

General Descriptive Abbreviations

L. – length
W. – width
H. – height
Th. – thickness
Wt. – weight

All lengths are maximums unless otherwise stated.

Glass and Ceramic Forms

Gellep – Pirling, R. 1966: *Das römisch-frankisch Gräberfeld von Krefeld-Gellep.* Berlin: Mann.

Gose – Gose, E. 1950: Gëfasstypen der römischen Keramik im Rheinland. Kevelaer: Butzan Berker.

Hatt – Hatt, J.J. 1964: L'atelier du Maitre F de Heiligenberg. *Revue Archéologique de l'Est et du Centre-Est* 15.313-327.

Niederbieber – Oelmann, F. 1914: *Die Keramik des Kastells Niederbieber.* Frankfurt: Baer Verlag.

Coins

RIC – *Roman Imperial Coinage.* Various authors. London: Spink and Son. 1923-1967 (1984).

BMC – *British Museum Catalogue.* Various authors. London.

Other Bibliographic Abbreviations

Short reports of excavations in a journals that include surveys of archaeological work in a partiucular region for a particular year are cited thus:

Journal Name volume.pages. *s.v.* [name of site] (author, year).
E.g. *Gallia* 26.501 fig. 40 *s.v.* Saint-Symphorien-d'Ancelles (Martin, 1968).

Similarly cited are:

AE – l'Anné Épigraphique. Various editors. Paris: Centre National de Recherche Scientifique. 1888-

CAG – Carte Archéologique de la Gaule. Various editors. Paris: Académie des Inscriptions et Belles Lettres. 1988-
E.g. CAG 51/1 (department) 78.7*.246-247 (Chossenot, 2004).

Espérandieu – *Recuiel général des bas-relieds de la Gaule romaine.* Edited by É. Espérandieu and R. Lantier. 15 Vols. 1907-1959.

LIMC – Lexicon Iconographicum Mythologiae Classicae. Edited by J. Boardman. Zurich: Artemis Verlag. 1981-1999

Hoops *RGA – Reallexicon der Germanischen Altertumskunde.* Edited by J. Hoops *et al.* Walter de Gruyter, Berlin and New York. 1973 –2007.

LTUR – *Lexicon Topographicum Urbis Romae.* Edited by M. Steinby. Rome: Quasar 1993-2000.

OLD – *Oxford Latin Dictionary.* Edited by P.G.W. Glare. Oxford: Clarendon Press. 1968-1982 (reprinted 1996).

ORL – *Obergermanisch-Raetische Limes des Römerreiches.* Edited by E. Fabricius, F. Hettner, O. von Sarwey. Heidelberg, Stuttgart and Berlin: Verlag von Otto Petters. 1894-1937.

RE – *Paulys Real-Encyclopädie der classischen Alterumswissenschaft.* Edited by A. Pauly, G. Wissowa and W. Kroll. Stuttgart 1893-1978.

RIB – *Roman Inscriptions of Britain.* Edited by R. Collingwood and R. Wright. Oxford: Clarendon. 1965-

ThesCRA – Thesaurus Cultus et Rituum Antiquorum. Edited by J. Boardmann et al. Getty Publications: Los Angeles 2004-2006

Museum Abbreviations

RLM Bonn – Rheinisches Landesmseum, Bonn.
RGM Köln. – Römisch-Germanisches Museum, Cologne.
RGZM Mainz – Römisch-Germanisches Zentralmusem, Mainz.
RLM Trier – Rheinisches Landesmuseum Trier.

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Studien zu Metallarbeiten und Toreutik der Antike

Band 4

ISBN 978-3-941336-45-2
ISBN 978-3-447-05991-6
ISSN 1868-3614